

CURRICULUM VITAE

Peter O. Newton, M.D.

CURRENT POSITION: Pediatric Orthopedic Surgeon 1994-present
Pediatric Orthopedic and Scoliosis Center
Children's Specialists of San Diego

Associate Clinical Professor 2002-present
Department of Orthopaedic Surgery
University of California, San Diego

Chief, Orthopedic Research 1999-present
Rady Children's Hospital and Health Center
San Diego, CA

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EDUCATION: 1979-1983 University of California, San Diego
La Jolla, CA
B.A. Bioengineering

1983-1987 University of Texas, Southwestern Medical School
Dallas, TX
Medical Degree

INTERNSHIP: 1987-1988 UC San Diego Medical Center
San Diego, CA
Surgical

NIH RESEARCH FELLOWSHIP: 1988-1989 Orthopaedic Bioengineering Laboratory
San Diego, CA
Advisor: Savio L-Y. Woo, Ph.D.

RESIDENCY: 1988-1993 UC San Diego Medical Center
San Diego, CA
Orthopaedic Surgery
Chairman: Wayne H. Akeson, M.D.

FELLOWSHIP:	1993-1994	Texas Scottish Rite Hospital Dallas, TX Pediatric Orthopaedics and Scoliosis Chief of Staff: J. A. Herring, M.D.
ACADEMIC APPOINTMENTS:	1994-2002	Assistant Clinical Professor Department of Orthopaedic Surgery University of California, San Diego
	2002-present	Associate Clinical Professor Department of Orthopaedic Surgery University of California, San Diego
HOSPITAL POSTIONS:	1999-present	Chief, Orthopedic Research Children's Hospital and Health Center San Diego, CA
	2002-present	Chairman, Orthopedic Department Children's Hospital and Health Center San Diego, CA
HONORS:	1983	University of California, San Diego Cum Laude
	1987	University of Texas, Southwestern Medical School Alpha Omega Alpha
	1998	Vernon Nickel Teaching Award University of California, San Diego Orthopedic Residency
	1999	Skaggs Scholar in Clinical Science The Scripps Research Institute
	2001	"Caring...The Children's Way" Award Children's Hospital and Health Center
TRAVELING FELLOWSHIP	2001	Scoliosis Research Society Traveling Fellow Asia Tour, April 21-May 13, 2001 Preceptor: John P. Kostuik, MD
LICENSURE:	Aug. 1988	California License
	Oct. 1988	DEA
	Oct. 1994	Radiography and Fluoroscopy
BOARD CERTIFICATION:	July 1996	American Board of Orthopaedic Surgery
HOSPITAL MEMBERSHIP:	1994-present	Children's Hospital and Health Center, San Diego, CA
	1994-present	UCSD Medical Center, San Diego, CA
	1998-present	Balboa Naval Medical Center, San Diego, CA
	1999-present	Kaiser Hospital, San Diego, CA
	1999-present	Sharp Memorial Hospital, San Diego, CA
MEDICAL SOCIETIES:	1984-present	American Medical Association
	1984-1994	Texas Medical Association, Dallas County Medical Society
	1994-present	California Medical Association, San Diego County Medical Society

	1995-1998	UCSD School of Medicine, Anatomy Course "Gait and Limb Function"
	2002-present	Pediatric Spinal Deformity Fellowship Training Program 2002 Fellow Gary Shapiro, MD 2003 Fellow Stephan Parent, MD
	2003-present	DePuy-AcroMed International Spinal Deformity Fellowship Training Program 2003 Fellow Fazir Mohamed, MD
JOURNAL REVIEWER	1998-present	Journal of the American Academy of Orthopaedic Surgeons
	2000-present	Spine
	2007-	Journal of Pediatric Orthopedics
EDITORIAL BOARD	2001-present	Journal of the American Academy of Orthopaedic Surgeons
PROGRAM CHAIR	2005	POSNA Annual Meeting
COMMITTEE CHAIR	2006	Scoliosis Research Society, Research Grant Committee
COMMITTEE MEMBER	2006	Scoliosis Research Society, Study Groups Task Force Committee
COMMITTEE MEMBER	2006	Scoliosis Research Society, Awards & Scholarship Committee
COMMITTEE MEMBER	2006	Scoliosis Research Society, 3D Spinal Classification Committee
COMMITTEE MEMBER	2006	Scoliosis Research Society, Data Base Committee

GRANT AND CONTRACTUAL AWARDS

- Newton, P.O.:** Thoracoscopic Anterior Spinal Release. Ethicon Endo-Surgery, Inc. March 13, 1995.
- Newton, P.O.:** Thoracoscopic Anterior Spinal Release in the Goat. Children's Hospital and Health Center, August 1, 1995.
- Newton, P.O.:** Thoracoscopic Anterior Spinal Instrumentation and Fusion. Depuy Motech Inc., April 30, 1997.
- Newton, P.O.:** Spinal Growth in Immature Rabbits. Children's Hospital and Health Center, December 17, 1997.
- Newton, P.O.** and Weinstein, C.H.: Modulation of Spinal Growth in an Immature Rabbit Model. AO-ASIF Research Commission, October 9, 1998.
- Newton, P.O.:** *In-Vivo* Flexible Spinal Tethering in a Bovine Model. Children's Hospital and Health Center, December 1, 1999.
- Newton, P.O.,** Farnsworth, C.F.: Spinal Growth Plate Ablation in an Immature Bovine Model. Nuvasive, March 2000.
- Newton, P.O.:** Surgical Correction of Idiopathic Scoliosis, Algorithm Study: Multi-Center Harms Study Group. DePuy AcroMed, August 2000 – December 2004.
- Newton, P.O.:** Instrumentation for Fusion of Thoracic Scoliosis, Lenke 1 Curves: Multi-Center Harms Study Group. DePuy AcroMed, August 2000 – December 2004.
- Newton, P.O.,** Early, S., Mahar, A.: Biomechanical Comparison of Lumbosacral Stability with Galveston and Colorado II Sacropelvic Fixation. Sofamor-Danek, July 2001.
- Newton, P.O.:** Dynamic Trunk Analysis of Normal Subjects and Patients with Adolescent Idiopathic Scoliosis. Medtronic Sofamor Danek, August 2001 – August 2005.
- Newton, P.O.,** Wenger, D.R.: A Study of Adolescent Idiopathic Scoliosis using the TriaC Scoliosis Brace. DePuy AcroMed, September 2001.

Newton, P.O., Garfin, S.: The Effect of rh BMP on Allograft Union and Remodeling in a Corpectomy Model. Medtronic Sofamor Danek, August 2001 – July 2003.

Newton, P.O.: Platelet Rich Plasma in Anterior Interbody Spinal Fusions. DePuy AcroMed, January 2002 – July 2005.

Newton, P.O.: Aortic Impingement by Anterior Screw Pilot Study. DePuy AcroMed, February 2002.

Newton, P.O.: Aortic Impingement by Anterior Screw Study. DePuy AcroMed, May 2002 – June 2004.

Newton, P.O.: Multilevel Spinal Growth Modulation with an Anterolateral Flexible Tether in an Immature Bovine Model. Orthopaedic Research and Education Foundation, July 2002 – June 2004.

Newton, P.O. : Anterolateral Flexible Tether in an Immature Bovine Model. DePuy AcroMed, May 31, 2002 – August 31, 2004.

Newton, P.O.: Anterolateral Flexible Tether in an Immature Bovine Model, Non Metallic Tethering Device. DePuy AcroMed, June, 1, 2002 – September 2003.

Newton, P.O.: Analysis of Biomechanical Stability and Failure Load in an Artificial “Spinal Ligament”. DePuy AcroMed, June, 1, 2002 – December 31, 2003.

Newton, P.O.: A Case Series Analysis of the Frontier Anterior Scoliosis System for the Correction of Scoliosis. DePuy Acromed, October 1, 2002 – September 30, 2004.

Newton, P.O.: Analysis of Rod Strain in Anterior Scoliosis Constructs. DePuy AcroMed, December 2002 – December 2003.

Newton, P.O.: Effect of Screw Diameter on Screw Pullout Strength in the anterior Vertebral Body. DePuy AcroMed, January 2003 – December 2003.

Newton, P.O.: Multi-Center Retrospective Review: Scheuermann's Kyphosis. DePuy Spine, Inc., August 2004 – June 2006.

Newton, P.O. : The Biological Effects of Corrosion by Combining Metals in a Spinal Implant: Mini-Pig Model. DePuy Spine, Inc., September 2004 – September 2006.

Newton, P.O. : The Short and Longer Term Effects of Moderate Aortic Impingement by Anterior Thoracic Instrumentation in a Sheep Model. DePuy Spine, Inc., February 2005 – September 2007.

Newton, P.O.: How Does Increasing Curve Magnitude in Scoliotic Deformity Affect the Biomechanics of the Spine with Implications Toward Curve Correction? Scoliosis Research Society, June 2005 - June 2006.

Newton, P.O.: Defining the Learning Curve and Complications with Single Lung Ventilation when Performing Thoracoscopy for Pediatric Spinal Deformity. DePuy Spine, Inc., December 2005 – December 2006.

Newton, P.O.: Retrospective Cerebral Palsy Scoliosis Study: Quantifying Outcomes and Risks. DePuy Spine, Inc., December 2005 – December 2006.

Newton, P.O.: Retrospective Congenital Spinal Deformity Study. DePuy Spine, Inc., December 2005 – December 2006.

Newton, P.O. : Prospective Study of Scheuermann’s Kyphosis. DePuy Spine, Inc., August 2006 – December 2010.

Newton, P.O. : Retrospective Investigation of the Use of Halo Traction in Large Scoliotic Curves. DePuy Spine, Inc., July 2006 – July 2007.

- Newton, P.O. :** Biomechanical Study in Calf Spines to Determine Effect of Rod Material and Size and Number of Fixation Points on Spine Flexibility. DePuy Spine, Inc., September 2006 – September 2007.
- Newton, P.O. :** Multilevel Spinal Growth Modulation with an Anterolateral Flexible Tether and Novel Screw and Staple Design in an Immature Mini-Pig Model Second Generation. DePuy Spine, Inc., December 2006 – December 2008.
- Newton, P.O. :** Bracing in Adolescent Idiopathic Scoliosis Trial. NIH. December 2006 – December 2011.

JOURNAL ARTICLES

- Woo, S.L-Y., Gomez, M.A., Sites, T.J., **Newton, P.O.**, Orlando, C.A., Akeson, W.H.: The Biomechanical and Morphological Change in the Medial Collateral Ligament of the Rabbit after Immobilization and Remobilization. *J. Bone and Joint Surg.*, 69A:1200-1211, 1987.
- Newton, P.O.**, Woo, S.L-Y., Kitabayashi, L.R., Lyon, R.M., Anderson, D.R., Akeson, W.H.: Ultrastructural Changes in Knee Ligaments Following Immobilization. *Matrix*, 10:314-319, 1990.
- Woo, S.L-Y., Danto, M.I., Ohland, K.J., Lee, T.Q., **Newton, P.O.**: The Use of a Laser Micrometer System to Determine the Cross-Sectional Shape and Area of Ligaments: A Comparative Study with Two Existing Methods. *J. Biomech. Eng.* 112:426-431, 1990.
- Weiss, J.A., Woo, S.L-Y., Ohland, K.J., Horibe, S., **Newton, P.O.**: Evaluation of a New Injury Model to Study Medial Collateral Ligament Healing: Primary Repair Versus Nonoperative Treatment. *J. Orthop. Res.* 9:516-528, 1991.
- Hart, R.A., Woo, S.L-Y., **Newton, P.O.**: Ultrastructural Morphometry of Anterior Cruciate and Medial Collateral Ligaments: An Experimental Study in Rabbits. *J. Orthop. Res.* 10:96-103, 1992.
- Woo, S.L-Y., **Newton, P.O.**, MacKenna, D.A., Lyon, R.M.: A Comparative Evaluation of the Mechanical Properties of the Rabbit Medial Collateral and Anterior Cruciate Ligaments. *J. Biomech.* 25:377-386, 1992.
- Carlson, G.D., Botte, M.J., Josephs, M.S., **Newton, P.O.**, Davis, J.L.R., Lieber, R.L., Woo, S.L-Y.: Morphologic and Biomechanical Comparison of Tendons Used as Free Grafts. *J. Hand Surg.* 18:76-82, 1993.
- Newton, P.O.**, Mubarak, S.J.: Financial Aspects of Femoral Fracture Treatment in Children and Adolescents. *J. Pediatr. Orthop.* 14:508-512, 1994
- Newton, P.O.**, Woo, S.L-Y., MacKenna, D.A., Akeson, W.H.: Knee Joint Immobilization Alters the Mechanical and Ultrastructural Properties of the Rabbit Anterior Cruciate Ligament. *J. Orthop. Res.*, 13:191-200, 1994.
- Newton, P.O.**, Mubarak, S.J.: The Use of Modified Neufeld's Skeletal Traction in Children and Adolescents. *J. Pediatr. Orthop.*, 15:467-469, 1995
- Newton, P.O.**, Lais, R., Roden, J., Herring, J.A.: The Use of Extracorporeal Life Support in Scoliosis Surgery. *J. Bone and Joint Surg.*, 78A:281-283, 1996.
- Newton, P.O.** and Johnston, C.E.: Analysis and Treatment of Poor Outcomes Following In-Situ Arthrodesis in Adolescent Spondylolisthesis. *J. Pediatr. Orthop.* 17:754-761, 1997.
- Newton, P.O.**, Wenger, D.R., Mubarak, S.J., Meyer, R.S.: Anterior Release and Fusion in Pediatric Spinal Deformity: A Comparison of Early Outcome and Cost of Thoracoscopic and Open Thoracotomy Approaches. *Spine*, 22:1398-1406, 1997.

- Newton, P.O.**, Cardelia, J.M., Farnsworth, C.L., Baker, K.J., Bronson, D.G.: A Biomechanical Comparison of Open and Thoracoscopic Anterior Spinal Release in a Goat Model. *Spine*, 23:530-536, 1998.
- Copley, L.A.B., Richards, B.S., Safavi, F.Z., **Newton, P.O.**: Hemodilution and the Relative Efficacy and Cost of Autologous Blood Replacement Techniques in Adolescent Spinal Fusion Surgery. *Spine*, 24:219-22, 1999
- Newton, P.O.**, Shea, K.G., Granlund, K.F.: Defining the Pediatric Spinal Thoracoscopy Learning Curve: Sixty-five Consecutive Cases. *Spine*, 25:1028-1035, 2000.
- Weinstein, C.H., Fujimoto, J.L., Wishner, R.E., **Newton, P.O.**: A Technique for Intubation and Anesthesia of Six Week Old New Zealand White Rabbits. *Contemporary Topics in Laboratory Animal Science*, 39:18-21, 2000.
- Fricka, K.B., Kim, C., **Newton, P.O.**: Spinal Lordosis With Marked Opisthotonus Secondary to Dystonia Musculorum Deformans. *Spine*, 26:2283-2288, 2001.
- Lee, S.S., Mahar, A.T., **Newton, P.O.**: Ender's Nail Fixation of Pediatric Femur Fractures: A Biomechanical Analysis. *J. Pediatr. Orthop.*, 21:442-445, 2001.
- Lee, S.S., Mahar, A.T., Miesen, D., **Newton, P.O.**: Displaced Pediatric Supracondylar Humerus Fractures: Biomechanical Analysis of Percutaneous Pinning Techniques. *J Pediatr Orthop*, 22:440-443, 2002
- Lenke, L.G., Betz, R.R., Clements, D., Merola, A., Haheer, T., Lowe, T., **Newton, P.O.**, Bridwell, K.H., Blanke, K.: Curve Prevalence of a New Classification of Operative Adolescent Idiopathic Scoliosis. Does Classification Correlate With Treatment? *Spine*, 27:604-611, 2002.
- Fricka, K.B., Mahar, A.T., **Newton, P.O.**: Biomechanical Analysis of Anterior Scoliosis Instrumentation: Differences between Single and Dual Rod Systems with and without Interbody Structural Support. *Spine*, 27:702-706. 2002
- Newton, P.O.**, Fricka, K.B., Lee, S.S., Farnsworth, C.L., Cox, T.G., Mahar, A.T.: Asymmetrical Flexible Tethering of Spinal Growth in an Immature Bovine Model. *Spine*, 27:689-693, 2002.
- Newton, P.O.**, Hahn, G.W., Fricka, K.B., Wenger, D.R.: The Utility of 3-Dimensional and Multiplanar Reformatted Computed Tomography in the Evaluation of Pediatric Congenital Spinal Abnormalities. *Spine*, 27:844-950, 2002.
- Wilson, P.L., **Newton, P.O.**, Wenger, D.R., Haheer, T., Merola, A., Lenke, L., Lowe, T., Clements, D., Betz, R.: A Multi-Center Study Analyzing the Relationship of a Standardized Radiographic Scoring System of Adolescent Idiopathic Scoliosis and the Scoliosis Research Society Outcomes Instrument. *Spine*, 27:2036-2040, 2002.
- Merola, A.A., Haheer, T.R., Brkaric, M., Panagopoulos, G., Mathur, S., Kohani, O., Lowe, T.G., Lenke, L.G., Wenger, D.R., **Newton, P.O.**, Clements, D.H. 3rd, Betz, R.R.: A Multicenter Study of The Outcomes of the Surgical Treatment of Adolescent Idiopathic Scoliosis Using the Scoliosis Research Society (SRS) Outcome Instrument. *Spine*, 27:2046-51, 2002.
- Early, S.D., **Newton, P.O.**, White, K.K., Wenger, D.R., Mubarak, S.J.: The Feasibility of Anterior Thoracoscopic Spine Surgery In Children Under Thirty Kilograms. *Spine*, 27:2368-2373. 2002.
- Marks, M.C., Stanford, C.F., Mahar, A.T., **Newton, P.O.**: Standing Lateral Radiographic Positioning Does Not Represent Customary Standing Balance. *Spine*, 28:1176-82, 2003.
- Kim, C.W., Smith, J.M, Lee, A., Hoyt, D.B., Kennedy, F., **Newton, P.O.**, Krakun, M; Meyer, R.S.: Personal Watercraft Injuries. *Journal of Orthopaedic Trauma* 17:571-573, 2003.
- Sink, E.R., **Newton, P.O.**, Mubarak, S.J., Wenger, D.R.: Maintenance of Sagittal Plane Alignment Following Surgical

Correction of Spinal Deformity in Patients with Cerebral Palsy. *Spine*, 28:1396-1403, 2003.

Newton, P.O., Lee, S.S., Mahar, A.T., Farnsworth, C.L., Weinstein, C.H.: Thoracoscopic Multilevel Anterior Instrumented Fusion in a Goat Model. *Spine*, 28:1614-1620, 2003.

Newton, P.O., Marks, M.C., Faro, F., Betz, R., Clements, D., Maher, T., Lenke, L, Lowe, T.: Use of Video-Assisted Thoracoscopic Surgery to Reduce Perioperative Morbidity in Scoliosis Surgery. *Spine*, 28:249-54, 2003.

Newton, P.O., Faro, F.D., Lenke, L.G., Betz, R.R., Clements, D.H., Lowe, T.G., Maher, T.R., Merola, A.A., D'Andrea, L.P., Marks, M., Wenger, D.R.: Factors Involved in the Decision to Perform a Selective Versus Nonselective Fusion of Lenke 1B and 1C (King-Moe II) Curves in Adolescent Idiopathic Scoliosis. *Spine*, 28:217-23, 2003.

Lowe, TG, Betz, R, Lenke, L, Clements, D, Harms, J, **Newton PO.**: Anterior single-rod instrumentation of the thoracic and lumbar spine; saving levels. *Spine*, 28:S208-16, 2003.

Faro FD, White KK, Ahn JS, Oka, RS, Mahar, AT, Bawa M, Farnsworth CL, Garfin SR, **Newton PO.**: Biomechanical analysis of anterior instrumentation for lumbar corpectomy. *Spine* 2003;28:E468-71.

Fricka, KB, Mahar, AT, Lee, SS, **Newton, PO.**: Biomechanical Analysis of Antegrade and Retrograde Flexible Intramedullary Nail Fixation of Pediatric Femoral Fractures using a Synthetic Bone Model. *J Pediatr Orthop.* 2004 Mar-Apr;24(2):167-71.

Perez, Mahar, **Newton**, Impelluso.: Analytical comparison of stainless steel and titanium flexible intramedullary nails for stabilization of femoral shaft fractures. Accepted to *Journal of Clinical Biomechanics*.

Yuan, PS, Pring, ME, Gaynor TP, Mubarak SJ, **Newton PO.**: Compartment Syndrome Following Intramedullary Fixation of Pediatric Forearm Fractures. *J Pediatr Orthop.* 2004 July-Aug;24(4):370-375.

Newton PO.: Results of thoracoscopic instrumented fusion versus conventional posterior instrumented fusion in type-3 adolescent idiopathic scoliosis. *Point of View. Spine* 2004;29:2039

Newton PO.: Early experiences with video-assisted thoracoscopic surgery: Our first 70 cases. *Point of View. Spine* 2004;29:1952.

Lenke, LG, **Newton PO**, Marks MC, Blanke KM, Sides B, Kim YJ, Bridwell KH: Prospective pulmonary function comparison of open versus endoscopic anterior fusion combined with posterior fusion in adolescent idiopathic scoliosis. *Spine* 2004;29:2055-60.

Faro FD, Marks MC, Pawelek J, **Newton, PO.**: Evaluation of a Functional Position for Lateral Radiograph Acquisition in Adolescent Idiopathic Scoliosis. *Spine* 2004;29:2284-89.

Mahar AT, Lee SS, Lalonde FD, Impelluso T, **Newton PO.**: Biomechanical comparison of stainless steel and titanium nails for fixation of simulated femoral fractures. *J Pediatr Orthop.* 2004 Nov-Dec;24(6):638-41

White KK, Bawa M, Ahn JS, Farnsworth C, Faro FD, Mahar AT, Wedemeyer M, Garfin SR, **Newton PO.**: Strut Allograft Union and Remodeling using rhBMP-2 in a Corpectomy Model. *Spine* 2005;30:1386-95.

Newton PO, White, KK, Faro FD, Gaynor T: The success of thoracoscopic anterior fusion in a consecutive series of 112 pediatric spinal deformity cases. *Spine* 2005;30:392-98.

Aminian A, Mahar A, Yassir W, **Newton P**, Wenger D: Freedom of acetabular fragment rotation following three surgical techniques for correction of congenital deformities of the hip. *J Pediatr Orthop*, 2005 January-February, 25(1):10-13.

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- Faro FD, Marks MC, **Newton PO**, Blanke K, Lenke L: Perioperative changes in pulmonary function following anterior scoliosis instrumentation: Thoracoscopic versus open approaches. *Spine* 2005;30:1058-1063.
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- Ballock RT, Bradley J, **Newton PO**: A Comparison of Early versus Late Conversion from Intravenous to Oral Therapy in the Treatment of Septic Arthritis. Accepted to *J Pediatr Orthop*.
- Newton PO**, Parent S, Marks M, Pawelek J: Prospective evaluation of 50 consecutive scoliosis patients surgically treated with thoracoscopic anterior instrumentation. *Spine* 2005;30:S100-S109.
- Newton PO**, Faro FD, Gollogly S, Betz RR, Lenke LG, Lowe TG: Results of preoperative pulmonary function testing of adolescents with idiopathic scoliosis. A study of six hundred and thirty-one patients. *J Bone Joint Surg Am*, 87:1937-1946, 2005.
- Newton PO**, Thompson G, Bridwell K. Summary statement: innovative technologies for traditional scoliosis surgery. *Spine*. 2005;30(17 Suppl):S92-3.
- Faro FD, Marks MC, **Newton PO**, Blanke K, Lenke LG.: Perioperative changes in pulmonary function after anterior scoliosis instrumentation: thoracoscopic versus open approaches. *Spine* 2005;30:1058-63.
- Faro FD, Farnsworth CL, Shapiro GS, Mohamad F, White KK, Breisch E, Mahar AT, Tomlinson T, Bawa M, Gomez M, **Newton PO**.: Thoracic vertebral screw impingement on the aorta in an in vivo bovine model. *Spine*. 2005;30:2406-13.
- Newton PO**, Faro FD, Farnsworth CL, Shapiro GS, Mohamad F, Parent S, Fricka K: Multilevel spinal growth modulation with an anterolateral flexible tether in an immature bovine model. *Spine* 2005;30:2608-2613.
- Newton PO**.: The use of video-assisted thoracoscopic surgery in the treatment of adolescent idiopathic scoliosis. *Instr Course Lect*. 2005;54:551-8. Review.
- Parent S, **Newton PO**, Wenger DR.: Adolescent idiopathic scoliosis: etiology, anatomy, natural history, and bracing. *Instr Course Lect*. 2005;54:529-36. Review.
- Newton PO**, Upasani V, Bastrom TP, Marks M, Gollogly S. Short Fusion with Residual Angulation vs. Long Fusion with Better Correction Which is Better? Submitted to *Spine*
- Kager AN, Marks M, Bastrom T, **Newton PO**: Morbidity of iliac crest bone graft harvesting in adolescent deformity surgery. *J Pediatr Orthop*, 2006 January-February, 26(1):132-134.
- Lowe TG, Lenke L, Betz R, Newton PO, Clements D, Hahr T, Crawford A, Letko L, Wilson LA: Distal junctional kyphosis of adolescent idiopathic thoracic curves following anterior or posterior instrumented fusion: incidence, risk factors and prevention. *Spine*, 2006;31:299-302.
- Mohamad F, Oka R, Mahar A, Wedemeyer M, **Newton P**. Biomechanical Comparison of the Screw-Bone Interface: Optimization of 1 and 2 Screw Constructs by Varying Screw Diameter. *Spine* 2006;31(16):E535-E539.

- Mahar AT, Brown DS, Oka RS, **Newton PO**. Biomechanics of cantilever "plow" during anterior thoracic scoliosis correction. *Spine J*. 2006;6(5):572-6.
- Moroz LA, Launay F, Kocher MS, **Newton PO**, Frick SL, Sponseller PD, Flynn JM. Titanium elastic nailing of fractures of the femur in children. *J. Bone and Joint Surg Br* 2006;88-B(10):1361-65.
- Kishan S, Upsanai V, Mahar A, Oka R, Odell T, Rohmiller M, **Newton PO**, Wenger DR. Biomechanical stability of single-screw versus two-screw fixation of an unstable slipped capital femoral epiphysis model: effect of screw position in the femoral neck. *J Pediatr Orthop*. 2006 Sep-Oct;26(5):601-5.
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- Marks M, Petcharaporn M, Betz RR, Clements D, Lenke LG, **Newton PO**: Outcomes of surgical treatment in males vs female adolescent idiopathic scoliosis patients. *Spine* 2007;32:544-49.
- Bode KS, **Newton PO**: Pediatric nonaccidental trauma thoracolumbar fracture-dislocation: posterior spinal fusion with pedicle screw fixation in an 8-month-old boy. *Spine* 2007;32:E388-93.
- Upasani VV, Tis J, Gaynor T, Pawelek J, Marks M, **Newton PO**. Analysis of sagittal alignment in thoracic and thoracolumbar curves in adolescent idiopathic scoliosis: How do these two curve types differ? *Spine* 2007;32:1355-9.
- Mohamed F, Parent S, Pawelek J, Marks M, Bastrom T, Faro F, **Newton P**: Perioperative complications after surgical correction in neuromuscular scoliosis. *J Pediatr Orthop*. 2007 Jun;27:392-7.
- Perez A, Mahar A, Negus C, **Newton P**, Impelluso T: A computational evaluation of the effect of intramedullary nail material properties on the stabilization of simulated femoral shaft fractures. Accepted to *Journal of Medical Engineering and Physics*.

BOOKS and BOOK CHAPTERS

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- Woo, S.L-Y., Wang, C.W., **Newton, P.O.**, Lyon, R.M.: The Response of Ligaments to Stress Deprivation and Stress Enhancement: Biomechanical Studies. In: *Knee Ligaments: Structure, Function, Injury, and Repair*, Raven Press, 1990.
- Wenger, D.R., Mubarak, S.J., Chambers, H.G., **Newton, P.O.**: Pediatric Scoliosis. In: *Orthopaedic Knowledge Update: Spine*, American Academy of Orthopaedic Surgeons, 1997.
- Wenger, D.R., Mubarak, S.J., Chambers, H.G., **Newton, P.O.**: Pediatric Spine - Non-Scoliosis. In: *Orthopaedic Knowledge Update: Spine*, American Academy of Orthopaedic Surgeons, 1997.
- Newton, P.O.**: Editorial Board Member, *Orthopaedic Knowledge Update: Spine*, American Academy of Orthopaedic Surgeons, 1997.

- Newton, P.O.**, Wenger, D.R., Mubarak, S.J.: Neuromuscular Scoliosis. In: Rothman-Simeone The Spine, 4th edition, W.B. Saunders Co., 1998.
- Newton, P.O.:** Open and Endoscopic Anterior Approaches to Spinal Deformity. Spine: State of the Art Reviews, Strategies in Pediatric Spine, 14:103-114, 2000, Hanley & Belfus, Inc.
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Fricka, K.B., Mahar, A.T., **Newton, P.O.**: Biomechanical Comparison of Anterior Scoliosis Instrumentation: Differences between Single and Dual Rod Systems with and without Interbody Cages. 36th Annual Meeting of the Scoliosis Research Society. Cleveland, Ohio, September 19-22, 2001.

Fricka, K.B., Mahar, A.T., **Newton, P.O.**: Biomechanical Comparison of Anterior Scoliosis Instrumentation: Differences between Single and Dual Rod Systems with and without Interbody Structural Support. 48th Annual Meeting of the Orthopedic Research Society. Dallas, TX, February 10-13, 2002.

Fricka, K.B., Mahar, A.T., **Newton, P.O.**: Biomechanical Comparison of Anterior Scoliosis Instrumentation: Differences between Single and Dual Rod Systems with and without Interbody Cages. 69th Annual Meeting of the American Academy of Orthopaedic Surgeons, Dallas, TX, February 13-17, 2002.

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of the Pediatric Orthopaedic Society of North America, Salt Lake City, May 3, 2002.

- Newton, P.O.**, Fricka, K.B., Mahar, A.T., Lee, S.S.: Biomechanical Analysis of Antegrade and Retrograde Flexible Intramedullary Rod Fixation of Pediatric Femoral Fractures Using a Synthetic Bone Model. 2002 Annual Meeting of the Pediatric Orthopaedic Society of North America, Salt Lake City, May 3, 2002.
- Betz, R.R., Lenke, L., Clements, D., **Newton, P.O.**, Harms, J., Wenger, D.R., Lowe, T., Haheer, T., Merola, A.: Limitations of Anterior Instrumentation for Correction of Thoracic Adolescent Idiopathic Scoliosis in the Immature (Risser 0) Patient. 2002 Annual Meeting of the Pediatric Orthopaedic Society of North America, Salt Lake City, May 3, 2002.
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- Lee, S, Mahar, A., Miesen, D., **Newton P.**: Biomechanics of Divergent Lateral Pin Fixation for Supracondylar Humerus Fractures. SICOT/SIROT 2002 XXII World Congress, San Diego, August 23-30, 2002.
- Stanford, C.F., Marks, M.C., **Newton, P.O.**: A noninvasive Approach for Measuring Sagittal Balance of the Spine. SICOT/SIROT 2002 XXII World Congress, San Diego, August 23-30, 2002.
- Eule, J.M., Lowe, T.G., Lenke, L.G., Betz, R.R., Harms, J., Clements, D.H., **Newton, P.O.**, Barmada A, Haher, T.R., Merola, A.A.: Selective Anterior or Posterior Thoracic Fusions in Lenke I Adolescent Idiopathic Scoliosis with Lumbar Curves Greater Than Forty Degrees. 37th Annual Meeting of the Scoliosis Research Society, Seattle, Washington, September 18-21, 2002.
- Clements, D.H. Betz, R.R., **Newton, P.O.**, Lenke, L.G., Lowe, T.G., Merola, A.A., Haher, T.R., Marks, M.: Incidence of Vascular Complications Associated with Anterior Thoracic Instrumentation for Adolescent Idiopathic Scoliosis. 37th Annual Meeting of the Scoliosis Research Society, Seattle, Washington, September 18-21, 2002.
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- D'Andrea, L.P., Betz, R.R., **Newton, P.O.**, Clements, D.H., Lenke, L.G., Haheer, T.R., Merola, A.A., Sucato, D.J.: Reliability and Validity of a Spine Deformity Radiographic Scoring System. 37th Annual Meeting of the Scoliosis Research Society, Seattle, Washington, September 18-21, 2002.
- Early, S., Mahar, A., Oka, R., **Newton, P.O.**: Biomechanical Comparison of the Luque-Galveston and Colorado II Methods for Sacropelvic Fixation. 37th Annual Meeting of the Scoliosis Research Society, Seattle, Washington, September 18-21, 2002.
- Early, S., Mahar, A., Oka, R., **Newton, P.O.**: The Biomechanical Advantage of Adding a Single Pair of Thoracolumbar Pedicle Screws to Luque-Galveston Construct Stability. 37th Annual Meeting of the Scoliosis Research Society, Seattle, Washington, September 18-21, 2002.
- Newton, P.O.**: Comparison of Outcomes in Treating Idiopathic Scoliosis with Anterior or Posterior Methods. 5th Combined Meeting of Spinal and Paediatric Sections, Asia-Pacific Orthopaedic Association, Singapore October 14, 2002.
- Newton, P.O.**: Flexible IM Nailing for Femoral Shaft Fractures; Indications and Pitfalls. 5th Combined Meeting of Spinal and Paediatric Sections, Asia-Pacific Orthopaedic Association, Singapore October 15, 2002.
- White, K.K., Bawa, M., Ahn, J.S., Farnsworth, C.L., Faro, F.D., Mahar, A.T., Oka, R.S., Wedemeyer, M.A., **Newton, P.O.**, Garfin, S.R.: The Effect Of *R/hbmp-2* On Allograft Union And Remodeling In A Corpectomy Model. 49th Annual Meeting of the Orthopedic Research Society. New Orleans, LA, February 3, 2003.
- Marks, M., Stanford, C., Mahar, A., **Newton, P.O.**: Analysis of Sagittal Balance of the Spine During Various Standing Positions And Gait. 49th Annual Meeting of the Orthopedic Research Society. New Orleans, LA, February 3, 2003.
- Early, S., Mahar, A., Oka, R., **Newton, P.O.**: Biomechanical Comparison of the Luque-Galveston and Colorado II Methods for Sacropelvic Fixation. 49th Annual Meeting of the Orthopedic Research Society. New Orleans, LA, February 3, 2003.
- Newton, P.O.**, Betz, R., Clements, D., Lenke, L., Crawford, A., Lowe, T., Haheer, T., Merola, A.: Anterior Thoracoscopic Instrumentation: A Matched Comparison to Open Anterior Instrumentation and Posterior Open Instrumentation. 70th Annual Meeting of the American Academy of Orthopaedic Surgeons, New Orleans, LA, February 5, 2003.
- Betz, R., Lenke, L., Clements, D., **Newton, P.O.**, Harms, J., Wenger, D., Lowe, T., Haheer, T., Merola, A.: Limitations of Anterior Instrumentation for Correction of Thoracic Idiopathic Scoliosis in the Immature (Risser 0) Patient. 70th Annual Meeting of the American Academy of Orthopaedic Surgeons, New Orleans, LA, February 5-9, 2003.
- White, K.K., Bawa, M., Ahn, J.S., Farnsworth, C.L., Faro, F.D., Mahar, A.T., Oka, R.S., Wedemeyer, M.A., **Newton, P.O.**, Garfin, S.R.: The Effect Of *R/hbmp-2* On Allograft Union And Remodeling In A Corpectomy Model. 2003 Annual Meeting of the Pediatric Orthopedic Society of North America, Amelia Island, FL, May 2, 2003.
- Yassir, W., Mahar, A., Aminian, A., Wenger, D., **Newton, P.**: A Comparison of Fixation Stability between Tonnis Triple Innominate osteotomy and the Ganz periacetabular osteotomy. 2003 Annual Meeting of the Pediatric Orthopedic Society of North America, Amelia Island, FL, May 4, 2003.
- Newton, P.O.**, Betz, R., Clements, D., Lenke, L., Crawford, A., Lowe, T., Haheer, T., Merola, A.: Anterior Thoracoscopic Instrumentation: A Matched Comparison to Open Anterior Instrumentation and Posterior Open Instrumentation. 2003 Annual Meeting of the Pediatric Orthopedic Society of North America, Amelia Island, FL, May 4, 2003.
- White, K.K., Ahn, J.S., Bawa, M., Farnsworth, C.L., Faro, F.D., Mahar, A.T., Oka, R.S., Wedemeyer, M.A., **Newton, P.O.**, Garfin, S.R.: The Effect Of *R/hbmp-2* On Allograft Union And Remodeling In A Corpectomy Model. 2003 Annual Meeting of the International Society for the Study of the Lumbar Spine, Vancouver, Canada, May 13-17, 2003.

- Marks, M.C., Kager, A.N., Fricka, K.B., **Newton, P.O.**: The Inter- and Intra-Observer Error of Trunk Shape Measures in Patients with Scoliosis. 10th International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
- Faro, F.D., Sink, E.L., Wenger, D.R., Mubarak, S.J., **Newton, P.O.**: Iliosacral Screws IN neuromuscular Kyphoscoliosis– Better Than Galveston? 10th International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
- White, K.K., Faro, F.D., Gaynor, M.A., **Newton, P.O.**: Anterior Fusion After Thoracoscopic Disc Excision: Analysis of 103 Consecutive Deformity Cases with Greater than Two-Year Follow up. 10th International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
- Brown, D., Mahar, A.T., Oka, R., **Newton, P.O.**: Is the Anterior Vertebral Body Staple Really Helpful in Scoliosis Correction? 10th International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
- Faro, F.D., **Newton, P.O.**, Marks, M.C., Wenger, D.R., Betz, R., Clements, D., D'Andrea, L.; Lenke, L.; Lowe, T.; Merola, A.; Haheer, T.: Factors Involved in the Decision to Perform a Selective vs. Non-Selective Fusion of Lenke 1B and 1C (King II) Curves in Adolescent Idiopathic Scoliosis (AIS). 10th International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
- White, K.K., Bawa, M., Ahn, J.S., Farnsworth, C.L., Faro, F.D., Maher, A.T., Oka, R.S., Wedemeyer, M.A., **Newton, P.O.**, Garfin, S.R.: The Effect of rhBMP-2 on Allograft Union and Remodeling in a Corpectomy Model. 10th International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
- Tis, J., Oswald, T., **Newton, P.O.**, Wenger, D.R., Lenke, L., Betz, R., Marks, M.C.: Pelvic Influence on Lumbar Lordosis in Thoracolumbar Adolescent Idiopathic Scoliosis. 10th International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
- Faro, F.D., Pawelek, J.B., Marks, M.C., **Newton, P.O.**: The Effect of Arm Position in Lateral Radiographs of the Spine in Adolescent Idiopathic Scoliosis. 10th International Meeting on Advanced Spine Techniques, Rome, Italy, July 10-12, 2003.
- Newton, P.O.**, White, K., Faro, F., Gaynor, T.: Anterior Fusion After Thoracoscopic Disc Excision: Analysis of 103 Consecutive Deformity Cases With Greater Than Two Year Follow Up. 38th Annual Meeting of the Scoliosis Research Society, Quebec City, Canada, September 10-13, 2003.
- Lenke, L.G., Marks, M., Blanke, K., Sides, B, **Newton, P.O.**, Kim, Y.: Prospective Pulmonary Function Comparison of Open vs Endoscopic Anterior Fusion Combined with Posterior Fusion in Adolescent Idiopathic Scoliosis. 38th Annual Meeting of the Scoliosis Research Society, Quebec City, Canada, September 10-13, 2003.
- D'Andrea, L.P., Betz, R.R., **Newton, P.O.**, Lenke, L.G., Clements, D.H., Harms, J, Haheer, T.R., Lowe, T.G., Merola, A.A., Crawford A.H., Sucato, D.J.: Effects of Continued Posterior Spinal Growth on Sagittal Contour After Anterior Spinal Fusion with Instrumentation of Different Sizes for Adolescent Idiopathic Scoliosis. 38th Annual Meeting of the Scoliosis Research Society, Quebec City, Canada, September 10-13, 2003.
- Faro, F., Marks, M., **Newton, P.O.**, Blanke, K, Lenke, L.: Perioperative Changes in Pulmonary Function Following Anterior Scoliosis Instrumentation: Thoracoscopic Versus Open Approaches. 18th Annual Meeting of the North American Spine Society, San Diego, CA, October 21-25, 2003.
- Newton, P.O.**, Betz, R., Clements, D., Lenke, L., Crawford, A., Lowe, T., Haheer, T., Merola, A., Wenger, D.R.: Anterior Thoracoscopic Instrumentation: A Matched Comparison to Open Anterior Instrumentation and Posterior Open Instrumentation. 18th Annual Meeting of the North American Spine Society, San Diego, CA, October 21-25, 2003.
- Newton, P.**, Faro F, Farnsworth C, Shapiro G, Mohamad F, Breisch, Mahar A, Tomlinson, White K, Bawa M, Gomez: Thoracic vertebral screw impingement on the aorta in an in vivo bovine model. 50th annual Meeting fo the Orthopaedic Research Society, San Francisco, CA, March 7-10, 2004.

- Goodwin R, Oka R, Mahar A, Faro F, **Newton P**: Retrograde nailing of comminuted fractures in a pediatric sized synthetic femur model: Differences related to fracture position. 50th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, March 7-10, 2004.
- Parent S, Wedemeyer M, Anderson, Faro F, Mahar A, Lalonde F, **Newton P**: Displaced olecranon fractures in children: A biomechanical analysis of fixation methods. 50th Annual Meeting of the Orthopaedic Research Society, San Francisco, CA, March 7-10, 2004.
- Newton, P.O.**, Faro, F.D., Gaynor, T.P., White, K.K.: Anterior Thoracoscopic Disc Excision: Analysis of 112 Consecutive Deformity Cases. 71st Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, CA, March 10-14, 2004.
- Newton, P.O.**: Indications and Advantages of Thoracoscopic Anterior Instrumentation. 71st Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, CA, March 10-14, 2004.
- Newton, P.O.**, Faro, F.D., Betz, R.R., D'Andrea, L.P., Clements, D.H., Lenke, L.G., Lowe, T.G., Merola, A.A., Haheer, T.R.: Selective vs Nonselective Fusion of Lenke I Curves in Adolescent Idiopathic Scoliosis (AIS): 71st Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, CA, March 10-14, 2004.
- White, K.K., Bawa, M., Ahn, J.S., Farnsworth, C.L., Faro, F.D., Mahar, A.T., Oka, R.S., Wedemeyer, M.A., **Newton, P.O.**, Garfin, S.R.: The Effect Of *rh*BMP-2 On Allograft Union And Remodeling In A Corpectomy Model. 71st Annual Meeting of the American Academy of Orthopaedic Surgeons, San Francisco, CA, March 10-14, 2004.
- Newton, P.O.**, Faro, F.D., Marks, M.C., Blanke, K., Lenke, L.: Pulmonary Function in Anterior Scoliosis Surgery: Open vs Thoracoscopic Approaches. 2004 Annual Meeting of the Pediatric Orthopedic Society of North America, St. Louis, MO, April 27 – May 1, 2004.
- Newton, P.O.**, Parent, S, Faro, F.D., Kager, A., Mohamad, F., Marks, M.C.: Results of the First 27 Cases of Thoracoscopic Anterior Instrumentation and Fusion: A Prospective Study. 2004 Annual Meeting of the Pediatric Orthopedic Society of North America, St. Louis, MO, April 27 – May 1, 2004.
- Newton, P.O.**, White, K.K., Faro, F.D., Gaynor, T.P.: Thoracoscopic Anterior Fusion: Analysis of 112 Consecutive Deformity Cases. 2004 Annual Meeting of the Pediatric Orthopedic Society of North America, St. Louis, MO, April 27 – May 1, 2004.
- Parent, S, **Newton, P.O.**, Anderson, M, Lalonde, F.D., Maher, A., Wedemeyer, M, Faro, F.: Displaced Olecranon Fractures in Children: A Biomechanical Analysis of Fixation Methods. 31st Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 13-14, 2004.
- Faro, F, Gollogly, S, **Newton, P.O.**: Pulmonary Function in AIS: A study of 631 patients. 31st Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 13-14, 2004.
- Faro, F, Farnsworth, C, Mahar, A, Tomlinson, T, **Newton, P.O.**, Shapiro, G, Breisch, E, Gomez, M: Thoracic vertebral screw impingement on the aorta of the bovine model. 31st Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 13-14, 2004.
- Parent, S, Marks, M, Faro, F, **Newton, P.O.**, Kager, A: Results of the first 30 cases of thoracoscopic anterior 31st Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 13-14, 2004.
- Rohmiller, M.T., **Newton, P.O.**: Correlation between instrumentation type, number of fixation points and cost of AIS. 31st Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 13-14, 2004.
- Parent, S, Pawelek, **Newton, P.O.**, Mohamad, F, Marks, M: Perioperative complications following surgical correction of

neuromuscular scoliosis. 31st Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 13-14, 2004.

- Faro, F, Farnsworth, C, Mohamad, F, **Newton, P.O.**, Shapiro, G, Fricka, K: Spinal Growth Modulation in an Immature Bovine Model. 31st Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 13-14, 2004.
- Marks, M, Stanford, C, Aguinaldo, A, Parent, S, **Newton, P.O.**: The effects of adolescent idiopathic scoliosis on spinal mobility. International Research Society for Spinal Deformities, Vancouver, BC Canada, June 10-12, 2004.
- Parent S, Marks M, Stanford, **Newton P**: Motion preservation evaluation below selective fusions of the thoracic spine in AIS. International Research Society for Spinal Deformities, Vancouver, BC Canada, June 10-12, 2004.
- Marks M, **Newton P**, Betz R, D'Andrea L, Clements D, Lenke L, Lowe T, Letko I, Haheer T, Merola A, Crawford A: Outcomes of surgical treatment in male vs female adolescent idiopathic scoliosis patients. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Newton P**, Kager A, Marks M: Morbidity of iliac crest bone graft harvesting in adolescent deformity surgery. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Rohmiller M, **Newton P**, Marks M, Gaynor T, Wenger D, Betz R, Lenke L, Lowe T, Clements D, Harms J, Letko I, Haheer T, Merola A, D'Andrea L, Crawford A, Sucato D: Does correlation exist between instrumentation type, number of fixation points and cost of surgical correction of scoliosis. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Newton P**, Faro F, Gollogly S, Betz R, Clements D, Lenke L, Lowe T, Crawford A, Haheer T, Merola A: Pulmonary function in adolescent idiopathic scoliosis. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Newton P**, Parent S, Faro F, Kager A, Mohamad F, Marks M: Results of 29 consecutive cases of thoracoscopic anterior instrumentation and fusion: A single surgeon prospective series. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Newton, P**, Faro F, Farnsworth C, Shapiro G, Mohamad F, Parent S, Fricka K: Spinal growth modulation in an immature bovine model. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Mohamad F, Parent S, Marks M, Pawelek J, Faro F, **Newton P**: Perioperative complications following surgical correction in neuromuscular scoliosis. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Newton P**, Faro F, Farnsworth C, Shapiro G, Mohamad F, Breisch, Gomez, Mahar A, Tomlinson, White K, Bawa M: Thoracic vertebral screw impingement on the aorta in a bovine model. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Parent S, Petcharaporn M, Marks M, **Newton P**: Changes in the SRS outcomes questionnaire scores during the preoperative phase of AIS patients. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Gollogly S, Faro F, Marks M, **Newton, P**: Sagittal hypokyphosis varies with the location of the apex of the coronal curve— Is there an explanation that suggests an etiology in idiopathic scoliosis? 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.
- Parent, **Newton P**, Marks M, Betz R, Clements D, D'Andrea L, Lenke L, Lowe T, Haheer T, Merola A, Wenger D: Factors involved in the decision include the thoracic spine when fusing primary thoracolumbar/lumbar (Lenke 5C and 6C) adolescent idiopathic scoliosis. 11th International Meeting on Advanced Spine Techniques, Bermuda, July 1-3, 2004.

- Lowe T, Betz RR, Lenke LG, Haheer T, Merola A, **Newton, PO**, Clements D, Crawford A, Sucato D, Letko LJ, Wilson L: An analysis of anterior versus posterior instrumented fusion for thoracic adolescent idiopathic (AIS) curve 70-80 degrees: Are there advantages of one over the other? 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Lowe T, Lenke LG, Betz RR, **Newton PO**, Clements D, Haheer T, Merola A, Crawford A, Sucato D, Letko LJ, Wilson L: Distal junctional kyphosis (DJK) adolescent idiopathic: Thoracic curves following anterior or posterior instrumented fusion: Incidence, risk factors and prevention. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Clements D, Betz RR, D'Andrea L, **Newton PO**, Mulcahey MJ, Marks, M, Porter S: Rib resection and rib deformity correction: Evaluation by scoliometer. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Rohmiller MT, **Newton PO**, Merola A, D'Andrea L, Wenger, D, Betz RR, Crawford A, Lowe T, Clements D, Harm J, Letko J, Haheer T: Does a correlation exist between instrumentation type, number of fixation points and cost in the surgical correction of adolescent idiopathic scoliosis? 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Newton PO**, Kager A, Marks M: Morbidity of iliac crest bone graft harvesting in adolescent deformity surgery. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Newton PO**, Faro F, Farnsworth C, Shapiro G, Mohamad F, Breisch E, Gomez M, Mahar A, Tomlinson T, White K, Bawa M: Thoracic vertebral screw impingement on the aorta in a bovine model. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Mohamad F, Fry R, Oka R, Mahar A, **Newton PO**: Biomechanical analysis of single and double anterior vertebral body screw fixation and the effect of increasing screw diameters. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Newton PO**, Faro F, Farnsworth C, Shapiro G, Mohamad F, Parent S, Fricka K: Spinal growth modulation in an immature bovine model. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Newton PO**, Faro FD, Gollogly S, Betz RR, Clements D, Lenke LG, Lowe T, Crawford A, Haheer T, Merola A: Pulmonary function in adolescent idiopathic scoliosis. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Polly DW, Sanders J, Bridwell KH, Lenke LG, **Newton PO**, Kuklo TR, Dormans J, Drummond D, Diab, M, Richard BS: Validity and reliability of the spinal appearance questionnaire in patients with idiopathic scoliosis. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Sucato DJ, **Newton PO**, Betz RR, Lenke LG, Crawford A, Cements D, D'Andrea L: The benefit of pleural closure following a thoracoscopic anterior spinal fusion and instrumentation for AIS. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Newton PO**, Parent S, Marks M, Pawelek J, Faro F, Mohamad F: Perioperative complications following surgical correction in neuromuscular scoliosis. 39th Annual Meeting of the Scoliosis Research Society, Buenos Aires, Argentina, September 6-9, 2004.
- Parent S, Wedemeyer M, Anderson, Faro F, Mahar A, Lalonde F, **Newton P**: Displaced olecranon fractures in children: A biomechanical analysis of fixation methods. 28th Annual Meeting American Society of Biomechanics, Portland, OR, September 2004.

- Flynn, JM, Launay, F, Moroz L, Kocher M, **Newton, PO**, Frick SL, Sponseller PD: Titanium elastic nailing of pediatric femur fractures: Predictors of complications and poor outcomes. 2005 Annual Meeting of the American Academy of Orthopaedic Surgeons, Washington, D.C., February 23-27, 2005.
- Newton, PO**, Faro, FD, Gollogly S, Betz, RR, Clements DH, Lenke LG, Lowe, TG, Crawford AH, Haheer TR: Pulmonary function in adolescent idiopathic scoliosis. 2005 Annual Meeting of the American Academy of Orthopaedic Surgeons, Washington, D.C., February 23-27, 2005.
- Newton, PO**, Faro, FD, Farnsworth CL, Shapiro GS, Mohamad F, Parent S, Fricka K: Spinal growth modulation in an immature bovine model. 2005 Annual Meeting of the American Academy of Orthopaedic Surgeons, Washington, D.C., February 23-27, 2005.
- Newton, PO**, Faro, FD, Farnsworth CL, Shapiro GS, Mohamad F, Breisch E, Mahar A, Tomlinson T, White K, Bawa M, Gomez M: Thoracic vertebral screw impingement on the aorta in an in vivo bovine model. 2005 Annual Meeting of the Orthopedic Research Society, Washington, D.C., February 23-27, 2005 (poster presentation).
- Newton, PO**: Innovations in scoliosis surgery. 2005 Wilson-Bost Interurban Club Annual Meeting, Children's Hospital, San Diego, CA, April 2, 2005.
- Wedemeyer, M, Parent, S, Mahar, A, Odell, T, Swimmer, T, **Newton, P**: Titanium Versus Stainless Steel For Anterior Spinal Fusions: An Analysis Of Rod Stress As An Indicator Of Rod Breakage In A Bovine Cadaveric Model During Physiologic Loading. Pediatric Orthopedic Society of North America, Annual Meeting. Ottawa, Ontario, Canada, May 13, 2005 - May 15, 2005.
- Goodwin R., Mahar A., **Newton PO**. Level of femoral fracture influences stability of retrograde divergent nails. Pediatric Orthopedic Society of North America, Annual Meeting. Ottawa, Ontario, Canada, May 13, 2005 - May 15, 2005.
- Sucato DJ, **Newton PO**, Betz R, Picetti G, Lenke L, Hresko T, Hu S, Braun J, Roye D. Defining the Learning Curve for Performing a Thoracoscopic Anterior Spinal Fusion and Instrumentation for AIS: A Multi-Center Study. Pediatric Orthopedic Society of North America, Annual Meeting. Ottawa, Ontario, Canada, May 13, 2005 - May 15, 2005.
- Crawford AH, Lowe T, Betz R, Lenke L, Haheer T, Merola A, **Newton P**, Clements D, Sucato D. Correction of Left Thoracic Curves: A Comparison of Anterior versus Posterior Instrumentation. Pediatric Orthopedic Society of North America, Annual Meeting. Ottawa, Ontario, Canada, May 13, 2005 - May 15, 2005.
- Newton, PO**: Endoscopic thoracic release. 18th Annual IITS Meeting, San Diego, California, May 26, 2005.
- Newton, PO**, Goodwin R, Oka R, Mahar A, Faro F: E-Poster--Retrograde nailing of comminuted fractures in a pediatric sized synthetic femur model: Differences related to fracture position. 2005 Annual Meeting of the Pediatric Orthopaedic Society of North America, Ottawa, Ontario, Canada, May 12-15, 2005.
- Newton, PO**, Wedemeyer M, Parent S, Mahar A, Odel T, Swimmer T: E-Poster--Titanium versus stainless steel for anterior spinal fusions: An analysis of rod stress as an indicator of rod breakage in a bovi. 2005 Annual Meeting of the Pediatric Orthopaedic Society of North America, Ottawa, Ontario, Canada, May 12-15, 2005.
- Sucato DJ, **Newton, PO**, Betz, RR, Picetti GG, Lenke LG, Hresko T, Hu SS, Braun JT, Roye DP: Defining the learning curve for performing a thoracoscopic anterior spinal fusion and instrumentation for AIS: A multi-center study. 2005 Annual Meeting of the Pediatric Orthopaedic Society of North America, Ottawa, Ontario, Canada, May 12-15, 2005.
- Parent S, Mahar AT, **Newton PO**, Lalonde FL. Displaced olecranon fractures in children: A biomechanical analysis of fixation methods. Western Orthopaedic Association Annual Meeting. Waikoloa, Hawaii, July 20 - 23, 2005.
- Newton PO**, Farnsworth C, Faro F, Mahar A, O'Dell T, Oka R, Mohamad F, Shapiro G, Parent S, Fricka K, Breisch E: The

Histological and Biomechanical Effects of Tethering Spinal Growth in an Immature Bovine Model. 12th International Meeting on Advanced Spine Techniques. Banff, Alberta, Canada, July 7 – 9, 2005.

Kishan S., **Newton PO**, Betz R., Lenke L, Lowe T., Clements D., D'Andrea L., Sucato D. Thoracoscopic Scoliosis Surgery Affects Pulmonary Function Less Than Thoracotomy At Two Years Post-Surgery. 12th International Meeting on Advanced Spine Techniques. Banff, Alberta, Canada, July 7 – 9, 2005.

Newton PO, Upasani V., Bastrom T., Marks M., Gollogly S. Short Fusion with Residual Deformity vs. Long Fusion with Better Correction – Which is Better? 12th International Meeting on Advanced Spine Techniques. Banff, Alberta, Canada, July 7 – 9, 2005.

Wedemeyer, M, Parent, S, Mahar, A, Odell, T, Swimmer, T, **Newton, P**. Titanium Versus Stainless Steel For Anterior Spinal Fusions: An Analysis Of Rod Stress As An Indicator Of Rod Breakage In A Bovine Cadaveric Model During Physiologic Loading. 12th International Meeting on Advanced Spine Techniques. Banff, Alberta, Canada, July 7 – 9, 2005.

Newton PO, Marks M, Betz R, Lenke L, Lowe T, Clements D, Haher T, Merola A, D'Andrea L, Crawford A, Harms J. Ten Year Trends in the Surgical Treatment of Primary Right Thoracic Adolescent Idiopathic Scoliosis. 12th International Meeting on Advanced Spine Techniques. Banff, Alberta, Canada, July 7 – 9, 2005.

Farnsworth CL, Geertsma RG, Swimmer TJ, **Newton PO**. Yucatan Mini-Pig as a Model of Spinal Growth. American Association of Laboratory Animal Science Annual Meeting. St. Louis, MO, November 2005.

Kishan S., **Newton PO**, Betz R., Lenke L, Lowe T., Clements D., D'Andrea L., Sucato D. Thoracoscopic Scoliosis Surgery Affects Pulmonary Function Less Than Thoracotomy At Two Years Post-Surgery. Scoliosis Research Society 2005 Annual meeting. Miami, Florida October 28-30, 2005. HIBBS AWARD NOMINEE

Newton PO, Upasani V., Bastrom T., Marks M., Gollogly S. Short Fusion with Residual Deformity vs. Long Fusion with Better Correction – Which is Better? Scoliosis Research Society 2005 Annual meeting. Miami, Florida October 28-30, 2005.

Newton PO, Farnsworth C., Faro F., Mahar A., O'Dell T., Oka R., Mohamad F., Shapiro G., Parent S., Fricka K., Breisch. E. The Histological and Biomechanical Effects of Tethering Spinal Growth in an Immature Bovine Model. Scoliosis Research Society 2005 Annual meeting. Miami, Florida October 28-30, 2005.

Newton PO, Marks M, Betz R, Lenke L, Lowe T, Clements D, Haher T, Merola A, D'Andrea L, Crawford A, Harms J. Ten Year Trends in the Surgical Treatment of Primary Right Thoracic Adolescent Idiopathic Scoliosis. Scoliosis Research Society 2005 Annual meeting. Miami, Florida October 28-30, 2005.

Lowe T, Teng eng Chien JT, Betz RR, Lenke LG, MD; **Newton PO**, Clements D, Crawford AH, Letko L. The Surgical Treatment of Double Thoracic Curves in Adolescent Idiopathic Scoliosis - Factors Involved in the Decision to Perform a Selective Fusion of the Main Thoracic Curve Versus a Posterior Fusion. Scoliosis Research Society 2005 Annual meeting. Miami, Florida October 28-30, 2005.

Lonner BS, Scharf C, **Newton PO**, O'Brien MF, Sponseller P, Lenke LG, Crawford AH, Letko L, Lowe TG, Shufflebarger H. Operative Management of Scheuermann's Kyphosis in 78 Patients. Scoliosis Research Society 2005 Annual meeting. Miami, Florida October 28-30, 2005.

Merola A, **Newton PO**, O'Brien MF, Haher TR, Lowe TG, Lenke LG, Clements D, Betz R, Crawford AH, Kubeck J, Shanti N. Lumbar Sagittal Plane Alignment with Respect to Instrumentation Type and Surgical Technique. Adolescent Idiopathic Scoliosis. Scoliosis Research Society 2005 Annual meeting. Miami, Florida October 28-30, 2005.

Crawford AH, Lowe T, Betz R, Lenke L, Haher T, Merola A, **Newton P**, Clements D, Sucato D. Correction of Left Thoracic Curves: A Comparison of Anterior versus Posterior Instrumentation. Scoliosis Research Society 2005

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Crawford AH, Babekir N, Lowe TG, Betz R, Lenke L, Haheer T, Merola A, **Newton PO**, Clements D, Sucato DJ, Letko L. Comparison between Left and Right Thoracic Curves in Idiopathic Scoliosis. Scoliosis Research Society 2005 Annual meeting. Miami, Florida October 28-30, 2005.

Kishan S, Upasani V, Mahar A, Oka R, Odell T, Rohmiller M, **Newton P**, Wenger D: Biomechanical Stability of Single Screw Versus Two Screw Fixation of an Unstable Slipped Capital Femoral Epiphysis Model: Effect of Screw Position in the Femoral Neck. 52nd Annual Meeting of the Orthopaedic Research Society, Chicago, IL. March 19-22, 2006.

Parent S, Odell T, Oka R, Mahar A, **Newton P**: Does Torque Direction Affect the Biomechanics of Direct Vertebral Derotation Using Pedicle Screws? 52nd Annual Meeting of the Orthopaedic Research Society, Chicago, IL. March 19-22, 2006.

Crawford A, Babekir N, Lowe TG, Betz R, Lenke L, Haheer T, Merola A, **Newton P**, Clements D, Sucato DJ, Letko L: Correction of left thoracic curves: a comparison of anterior versus posterior instrumentation. American Academy of Orthopaedic Surgeons annual meeting, Chicago, IL, March 22-26, 2006.

Kishan S, **Newton PO**, Betz RR, Lenke LG, Lowe TG, Clements DH, D'Andrea LP, Sucato DJ: Anterior scoliosis instrumentation improves pulmonary function at two years follow up. American Academy of Orthopaedic Surgeons annual meeting, Chicago, IL, March 22-26, 2006.

Lonner BS, **Newton PO**, Betz RR, Scharf C, O'Brien M, Sponseller P, Lenke LG, Crawford AH, Lowe TG, Letko L, Harms J, Shufflebarger HL: Operative management of Scheuermann's kyphosis in 78 patients. Outcomes, complications, and technique. American Academy of Orthopaedic Surgeons annual meeting, Chicago, IL, March 22-26, 2006.

Instructional Course--Moderator: Frick S; Panel: Skaggs D, Mehlman C, **Newton PO**: The difficult pediatric Supracondylar Humerus fracture: Tips and techniques to avoid complications. American Academy of Orthopaedic Surgeons annual meeting, Chicago, IL, March 22-26, 2006.

Instructional Course--Moderator: **Newton PO**; Panel: O'Brien M, Sucato D, Kuklo T: Adolescent idiopathic scoliosis. American Academy of Orthopaedic Surgeons annual meeting, Chicago, IL, March 22-26, 2006.

Instructional Course--Moderator: Reagan J; Panel: Annand N, Berven SH, **Newton PO**; Anterior thoracolumbar spinal surgery: Minimal and maximally invasive instrumentation. American Academy of Orthopaedic Surgeons annual meeting, Chicago, IL, March 22-26, 2006.

Newton, PO: Poster presentation—Correction of left thoracic curves: A comparison of anterior versus posterior instrumentation. American Academy of Orthopaedic Surgeons annual meeting, Chicago, IL, March 22-26, 2006.

Kishan S., **Newton PO**, Betz R., Lenke L, Lowe T., Clements D., D'Andrea L., Sucato D. Thoracoscopic Scoliosis Surgery Affects Pulmonary Function Less Than Thoracotomy At Two Years Post-Surgery. Pediatric Orthopedic Society of North America annual meeting, San Diego, CA, May 2 – 6, 2006.

Parent S, Odell T, Oka R, Mahar A, **Newton P**: Does Torque Direction Affect the Biomechanics of Direct Vertebral Derotation Using Pedicle Screws? Pediatric Orthopedic Society of North America annual meeting, San Diego, CA, May 2 – 6, 2006.

Newton, PO. The relationship between thoracic hyperkyphosis and the Scoliosis Research Society Outcomes Instrument. Scoliosis Research Society, 41st Annual Meeting, Monterey, CA, September 13-16, 2006.

Newton, PO. Standardized outcomes measures in adolescent idiopathic scoliosis. Scoliosis Research Society, 41st Annual Meeting, Monterey, CA, September 13-16, 2006.

- Newton, PO.** Moderator--Instructional Course: Adolescent Idiopathic Scoliosis. American Academy of Orthopaedic Surgeons annual meeting, San Diego, CA, February 14-18, 2007.
- Newton PO.** Panel member—Instructional Course: Anterior thoracolumbar spine surgery: minimal and maximally invasive. American Academy of Orthopaedic Surgeons annual meeting, San Diego, CA, February 14-18, 2007.
- Newton PO.** Poster: Surgical approach does not affect spontaneous lumbar curve correction in Lenke B and C curve types. American Academy of Orthopaedic Surgeons annual meeting, San Diego, CA, February 14-18, 2007.
- Newton PO.** Poster: Factors that influence pulmonary function two years after surgical treatment of 254 AIS patients. American Academy of Orthopaedic Surgeons annual meeting, San Diego, CA, February 14-18, 2007.
- Newton PO:** Open, mini-open, thoracoscopic anterior instrumentation for deformity: Status in 2007. Current Concepts in Emerging Technologies in Spine, February 19-21, 2007.
- Newton PO:** Moderator, Breakout Session: Adolescent idiopathic deformity selection of distal fusion levels. Current Concepts in Emerging Technologies in Spine, February 19-21, 2007.
- Newton PO:** Panelist, Breakout Session: Spinal deformity under the age of 10 years. Current Concepts in Emerging Technologies in Spine, February 19-21, 2007.
- Newton PO:** Moderator: Deformity. Current Concepts in Emerging Technologies in Spine, February 19-21, 2007.
- Newton, PO:** Instructional Course Lecture: Anterior Thoracolumbar Spine Surgery: Minimal and Maximally Invasive. Academy of Orthopaedic Surgeons annual meeting, San Diego, CA, February 14-18, 2007.
- Baitner A, Bastrom TP, Pawelek J, **Newton PO.** Poster presentation--Matched Comparison of Pediatric Forearm Refractures. Academy of Orthopaedic Surgeons annual meeting, San Diego, CA, February 14-18, 2007.
- Patel PN, **Newton PO,** Bastrom TP, Marks MC, Pawelek J, Harms Study Group. Poster presentation--Surgical Approach Does Not Affect Spontaneous Lumbar Curve Correction in Lenke B and C Curve Types. Academy of Orthopaedic Surgeons annual meeting, San Diego, CA, February 14-18, 2007.
- Newton PO,** Perry A, Bastrom TP, Lenke LG, Betz RR< Clements DH, D'Andrea LP. Poster presentation--Factors That Influence Pulmonary Function Two Years After Surgical Treatment of 254 AIS Patients. Academy of Orthopaedic Surgeons annual meeting, San Diego, CA, February 14-18, 2007.
- Newton PO.** Moderator: Early onset scoliosis. Pediatric Spine: On the Cutting Edge, Coral Gables, Miami, FL. April 13-14, 2007.
- Newton PO.** Fusionless scoliosis correction: Experimental studies, tethers, Shilla procedure. Pediatric Spine: On the Cutting Edge, Coral Gables, Miami, FL. April 13-14, 2007.
- Newton PO.** Thoracic AIS: limits of thoracoscopic instrumentation. Limits of posterior only instrumentation. Pediatric Spine: On the Cutting Edge, Coral Gables, Miami, FL. April 13-14, 2007.
- Newton PO.** Moderator: Lightening panels on AIS. Pediatric Spine: On the Cutting Edge, Coral Gables, Miami, FL. April 13-14, 2007.
- Petcharaporn M, Pawelek J, Bastrom T, Lonner B, **Newton PO.** The relationship between thoracic hyperkyphosis and the Scoliosis Research Society outcomes instrument. Association of Bone and Joint Surgeons annual meeting, April 15, 2007, Lexington, KY

- Ritzman R, Dwek J, **Newton P**. Analysis of pelvic anatomy in cerebral palsy patients using 3D CT technology: Implications for sacropelvic fixation in scoliosis correction. 34th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 17-18, 2007.
- Tsutsui S, Bastrom T, Pawelek J, **Newton P**, Harms Study Group. The isolated effect of a scoliosis fusion on SRS outcomes questionnaire is modest. 34th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 17-18, 2007.
- Upasani V, Kim J, Oka R, **Newton P**, Farnsworth C, Perry A, Mahar A. Compensatory reverse disc wedging from anterolateral spinal tethering in a porcine model. 34th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 17-18, 2007.
- Bloom T, Mahar A, Pring M, Robertson C, **Newton P**. Comparison of Supracondylar humerus fracture pinning when the fracture is not anatomically reduced. 34th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 17-18, 2007.
- Upasani U, Petcharaporn M, Bastrom T, **Newton P**, Caltoum C, Pawelek J, Marks M, Harms Study Group. Does obesity affect surgical outcomes in adolescent idiopathic scoliosis? 34th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 17-18, 2007.
- Ritzman T, Bstrom T, **Newton P**, Upasani V, Pawelek J, Harms Study Group. Return of shoulder girdle function after anterior vs. posterior adolescent idiopathic scoliosis surgery. 34th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 17-18, 2007.
- Steinman S, **Newton P**, Bastrom T, Mubarak S. Ulnar nerve entrapment in flexion-type Supracondylar humerus fractures. 34th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 17-18, 2007.
- Tsutsui S, Bastrom T, **Newton P**, Pawelek J, Shah S. Do discs “open” anteriorly with posterior only correction of Scheuerman’s kyphosis? 34th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 17-18, 2007.
- Caltoum C, Petcharaporn M, Pawelek J, Bastrom T, **Newton P**, Harms Study Group. Adolescent idiopathic scoliosis patients report increased pain at 5 years compared to 2 years after surgical treatment. 34th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, May 17-18, 2007.
- Upasani V, Caltoum C, Petcharaporn M, Bastrom T, Lowe T, Betz R, Clements D, Lenke L, **Newton P**. Paper presentation: Adolescent idiopathic scoliosis patients report increased pain at 5 years compared to 2 years after surgical treatment. Pediatric Orthopaedic Society of North America annual meeting, Hollywood, FL, May 23-26, 2007.
- Patel P, Bastrom TP, Marks MC, Pawelek J, Betz RR, Lenke LG, **Newton PO**. Paper Presentation: Spontaneous lumbar curve correction in selective thoracic fusions of idiopathic scoliosis— anterior and posterior approaches. Pediatric Orthopaedic Society of North America annual meeting, Hollywood, FL, May 23-26, 2007.
- Newton PO**, Perry A, Bastrom TP, Lenke LG, Betz RR, Clements D, D’Andrea LP. Paper presentation: Factors that influence pulmonary function 2 years after surgical treatment of 254 AIS patients. Pediatric Orthopaedic Society of North America annual meeting, Hollywood, FL, May 23-26, 2007.
- Newton PO**. Spine symposium: Spinal deformity Update. Case presentation of spinal deformity panel discussion. Pediatric Orthopaedic Society of North American annual meeting, Hollywood, FL, May 23-26, 2007.
- Newton, PO**, et al. Paper presentation: The healing forearm fracture: A matched comparison of forearm refractures. Pediatric Orthopaedic Society of North America annual meeting, Hollywood, FL, May 23-26, 2007.

- Steinman S, Bastrom TP, **Newton PO**, Mubarak SJ. Poster presentation: Ulnar nerve entrapment in flexion-type supracondylar humerus fractures. Pediatric Orthopaedic Society of North America annual meeting, Hollywood, FL, May 23-26, 2007.
- Upasani V, Caltoun C, Petcharaporn M, Bastrom T, Pawelek J, Marks M, Betz R, Lenke L, **Newton PO**. E-Poster: Does an increased body mass index affect the risk for perioperative complications in adolescent idiopathic scoliosis? Pediatric Orthopaedic Society of North America annual meeting, Hollywood, FL, May 23-26, 2007.
- Steinman S, Mahar A, Oka R, Goodwin R, Wallace D, **Newton P**. E-Poster: Antegrade versus retrograde flexible intramedullary stabilization of femoral fractures: Which is best for a distal fracture? Pediatric Orthopaedic Society of North America annual meeting, Hollywood, FL, May 23-26, 2007.
- Newton P**, Lhamby J, Upasani V, Pawelek J, Bastrom T. E-Poster: 5-year follow up of scoliosis patients surgically treated with thoracoscopic anterior instrumentation. Pediatric Orthopaedic Society of North America annual meeting, Hollywood, FL, May 23-26, 2007.
- Bloom T, Robertson C, Mahar A, Pring M, **Newton P**. Comparison of supracondylar humerus fracture pinning when the fracture is not anatomically reduced. Pediatric Orthopaedic Society of North America annual meeting, Hollywood, FL, May 23-26, 2007.
- Upasani VV, Ritzman TF, Mahar A, Bastrom T, **Newton PO**. Paper presentation—Maintenance of rod contour when instrumenting a “rigid” spine model: Which rods are best? 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
- Newton PO**, Betz RR, O’Brien M. Instructional course lecture—Advanced deformity techniques. 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
- Sponseller PD, **Newton PO**, Boachie-Adjei O, Flynn J, D’Andrea L, Bridwell KH, Gupta, MC, Marks MC. Paper presentation—Comparison of severe scoliosis treated with or without halo traction. 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
- Miyanji F, Oka R, Mahar A, Upasani VV, **Newton PO**. Paper presentation—Biomechanical analysis of transfacet and lateral mass constructs for multi-level posterior cervical spine stabilization. 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
- Pawelek J, **Newton PO**, Perry A, The Harms Study Group. Paper presentation—The variation in how surgeons contour rods for scoliosis correction is substantial. 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
- Newton PO**. Moderator, Panel Discussion—Syndromic Pediatric Scoliosis. 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
- Aubin CE, Labelle H, Lenke LG, Jackson RP, **Newton PO**. Paper presentation—The central hip vertical axis (CHVA): A new reference axis as an initial basis for the SRS 3D classification of idiopathic scoliosis. 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
- Upasani VV, Ritzman TF, Mahar A, Bastrom T, **Newton PO**. Paper Abstract—Maintenance of rod contour when instrumenting a “rigid” spinal model: Which rods are best? 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.
- Sponseller PD, **Newton PO**, Boachie-Adjei O, Flynn J, D’Andrea LP, Bridwell KH, Gupta MC, Marks MC. Paper Abstract—Comparison of severe scoliosis treated with or without halo traction.
- Miyanji F, Oka R, Mahar A, Upasani VV, **Newton PO**. Paper Abstract—Biomechanical analysis of transfacet and lateral

mass constructs for multi-level posterior cervical spine stabilization. 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.

Pawelek J, **Newton PO**, Perry A, The Harms Study Group. Paper Abstract—The variable in how surgeons contour rods for scoliosis correction is substantial. 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.

Aubin CE, Labelle H, Lenke LG, Jackson RP, **Newton PO**, Stokes IA. Paper Abstract—The central hip vertical axis (CHV). A new reference axis as an initial basis for the SRS 3D classification of idiopathic scoliosis. 14th International Meeting on Advanced Spine Techniques, Paradise Island, Bahamas, July 11-14, 2007.

BOOK REVIEWS

The Raven MRI Teaching File: MRI of the Musculoskeletal System. John V. Crues III, editor. Raven Press, 1991, in J. *Pediatr. Orthop.*, 12:549, 1992.

The Textbook of Spinal Surgery. Keith Bridwell and Ronald DeWald, editors. J.B. Lippincott Co., 1991, in J. *Pediatr. Orthop.*, 12:550, 1992.

Complications in Spinal Surgery. Richard A. Balderston, Howard S. An, editors. W.B. Saunders, 1991, in J. *Pediatr. Orthop.*, 12:550, 1992.

Reconstructive Knee Surgery. Douglas W. Jackson, editor. Raven Press, New York, 1994, in J. *Pediatr. Orthop.*, 15: , 1995.

Moe's Textbook of Scoliosis and Other Spinal Deformities (Third Edition). John Lonstein, Robert Winter, David Bradford, and James Ogilvie, editors. Saunders, 1995, in J. *Pediatr. Orthop.*, 16:273, 1996.

COURSES & INVITED LECTURES

Newton, P.O.: Ultrasound Evaluation of Musculoskeletal Soft Tissue Structures. Hip Ultrasound Course, November 5, 1994.

Newton, P.O.: Endoscopic Anterior Spine Surgery: Current Status. 3rd Annual San Diego Spine Symposium, November 18, 1994.

Program Co-Chairman: 22nd Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, San Diego, CA, March 22-24, 1995.

Newton, P.O.: Thoracoscopic Spine Surgery. University of California, Irvine Orthopedic Surgery Grand Rounds, April 5, 1995.

Newton, P.O.: Pediatric Orthopedic Emergencies. San Diego Emergency Physicians Society, April 13, 1995.

Newton, P.O.: Gait Disorders in Children. Office Orthopedics and Bone Radiology for the Primary Care Physician, April 30, 1995.

Newton, P.O.: Scoliosis. Office Orthopedics and Bone Radiology for the Primary Care Physician, April 30, 1995.

Newton, P.O.: Common Orthopedic Problems in Teenagers. Adolescent Medicine: A Practical Course for Clinicians, July

22, 1995

- Newton, P.O.:** Symposium on Sports Medicine in Children, Upper Extremity Problems. 13th Congress Association of Mexican Orthopedics and Traumatology, Tijuana, October 27, 1995.
- Newton, P.O.:** Symposium on Management of Pediatric Septic Arthritis and Osteomyelitis, Laboratory and Radiographic Diagnostic Methods. 13th Congress Association of Mexican Orthopedics and Traumatology, Tijuana, October 29, 1995.
- Newton, P.O.:** Instructional Course on Scoliosis in Children, Thorascopic Anterior Spinal Fusion. 13th Congress Association of Mexican Orthopedics and Traumatology, Tijuana, October 30, 1995.
- Newton, P.O.:** Pain Management Symposium, Adolescent Medicine Update, Children's Hospital and Health Center, San Diego, November 27, 1995.
- Newton, P.O.:** Perthes Disease. University of California, Irvine Orthopedic Surgery Grand Rounds, February 14, 1996.
- Newton, P.O.:** Current Concepts in the Management of Children's Spine Injuries, Southern California Permanente Medical Group, Orthopedic Annual Symposium, Newport Beach, March 2, 1996.
- Program Chairman:** 23rd Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, San Diego, CA, March 20-22, 1996.
- Newton, P.O.:** Current Concepts in Idiopathic Scoliosis, UCSD Department of Pediatrics Grand Rounds, March 26, 1996.
- Newton, P.O.:** Thorascopic Anterior Spinal Fusion, POSNA Tutorial, Anterior Spine Techniques, TSRH, Dallas, Texas, March 29, 1996.
- Newton, P.O.:** Orthopedic Considerations in Spinal Muscular Atrophy, Families of SMA Conference, Las Vegas, NV, April 6, 1996.
- Newton, P.O.:** Management of Common Lower Extremity Complaints. Office Orthopedics and Bone Radiology for the Primary Care Physician, April 21, 1996.
- Newton, P.O.:** Evaluation of Back Pain in Children. Office Orthopedics and Bone Radiology for the Primary Care Physician, April 21, 1996.
- Newton, P.O.:** Thorascopic Anterior Spine Surgery. Little Orthopedic Club, May 9, 1996.
- Newton, P.O.:** Thorascopic Approach to the Anterior Spine. Annual Meeting of the Orthopedic Guild, San Diego, CA, November 9, 1996.
- Newton, P.O.:** Fractures of the Lower Extremities in Children. AAOS Review and Update for Practicing Orthopedic Surgeons, San Diego, CA, November 21, 1996.
- Newton, P.O.:** Iatrogenic Problems: Avoidance and Treatment. The San Diego Cerebral Palsy Symposium, January 16, 1997.
- Newton, P.O.:** Thorascopic Approach to the Anterior Spine, San Diego Scoliosis Association Spinal Conference, February 8, 1997.
- Newton, P.O.:** The New Guidelines for Scoliosis. Pediatric Update 1997, San Diego, CA, February 18, 1997.
- Newton, P.O.:** Office Management of Pediatric Orthopedic Trauma. Pediatric Update 1997, San Diego, CA, February 18,

1997.

Newton, P.O.: Orthopedic Problems of Infants and Toddlers. Office Orthopedics and Bone Radiology for the Primary Care Physician, April 20, 1997.

Newton, P.O.: The Teen Athlete: "No Pain No Gain". Office Orthopedics and Bone Radiology for the Primary Care Physician, April 20, 1997.

Newton, P.O.: Spine Problems. Pediatric and Adolescent Sports Medicine Course, June 24, 1997.

Newton, P.O.: Lower Extremity Deformities in Children. UCSD Pediatric Grand Rounds, July 15, 1997.

Newton, P.O.: Back Pain in Children. Current Concepts in Pediatric Medicine 1998, San Diego CA, March 20, 1998

Newton, P.O.: Scoliosis and Kyphosis, Identified and Managed. Current Concepts in Pediatric Medicine 1998, San Diego, CA, March 20, 1998.

Chairman, Scoliosis Research Society Tutorial, Pediatric Thoracoscopic Anterior Spinal Fusion, San Diego, CA, June 14-15, 1998.

Newton, P.O.: Video Demonstration: Thoracoscopic Treatment of Scoliosis. Anterior Treatment of Scoliosis Seminar, Chicago, IL, December 4, 1998.

Newton, P.O.: Thoracoscopic Correction of Pediatric Spinal Deformity. The Management of Vertebral Intracorporeal Disorders, GICD Meeting, Chicago, IL, December 6, 1998.

Newton, P.O.: Thoracoscopic Approach to the Anterior Spine, San Diego Scoliosis Association Spinal Conference, February 13, 1999.

Newton, P.O.: Management of Femoral Fractures in Children Including Use of Elastic Femoral Intramedullary Nails. Pediatrics Symposium at 63 rd Annual Meeting of the Western Orthopedic Association, August 1, 1999.

Visiting Professor, AACD Rehabilitation Hospital, Sao Paulo, Brazil, June 22 – 25, 1999

Pediatric Spinal Thoracoscopy, Indications and Technique
Thoracoscopic Anterior Spinal Release, Video demonstration
Spinal Thoracoscopy Learning Curve and Outcomes
Endoscopic Spinal Surgery Below the Diaphragm
The Utility of 3D CT Scanning in Congenital Scoliosis
Early Conversion to Oral Antibiotics in Pediatric Septic Arthritis

Visiting Professor, Italian Hospital, Buenos Aires, Argentina, June 28 – July 1, 1999

Pediatric Spinal Thoracoscopy, Indications and Technique
Thoracoscopic Anterior Spinal Release, Video demonstration
Spinal Thoracoscopy Learning Curve and Outcomes
Argentine Orthopedic and Traumatology Association, VATS in Adolescent Idiopathic Scoliosis
Experimental Lab VATS Demonstration

Newton, P.O.: Thoracoscopic Instrumentation, Animal Studies. Scoliosis Research Society Tutorial, Philadelphia, PA, October 26, 1999

Newton, P.O.: Limb Length Equalization. AAOS Course, Pediatric Orthopedics: Current Perspectives and Techniques, San Diego, CA, December 3, 1999.

Newton, P.O.: Spinal Problems in Young Athletes. AAOS Course, Pediatric Orthopedics: Current Perspectives and

Techniques, San Diego, CA, December 3, 1999.

Newton, P.O.: Anterior Release Of Adolescent Idiopathic Scoliosis / Kyphosis with Fusion. Endoscopic Approaches to the Thoracic Spine, Medical Education and Research Institute Course, Memphis, TN, February 5, 2000.

Newton, P.O.: Thoracoscopy for scoliosis. National Association of Orthopedic Nurses AAOS Annual Meeting, Orlando, FL, March 15, 2000.

Newton, P.O.: Anterior Release Of Adolescent Idiopathic Scoliosis / Kyphosis with Fusion. Endoscopic Approaches to the Thoracic Spine, Medical Education and Research Institute Course, Memphis, TN, April 1, 2000.

Visiting Professor, 30th Anniversary Course of the Scoliosis Center of the Italian Hospital of Buenos Aires: Advances in the treatment of deformities of the vertebral column. Buenos Aires, Argentina, June 29 – 30, 2000

Presentation: Experimental Studies in Thoracoscopic Anterior Fusion and Instrumentation

Panel Discussion: Scoliosis in Children and Adults

Moderator: Congenital Scoliosis and Kyphosis

Presentation: Clinical Experience of Thoracoscopic Anterior Scoliosis Correction

Panel Discussion Scheuermann's, Spondylolysis, Spondylolisthesis

Newton, P.O.: The Learning Curve in Thoracoscopic Procedures: Orthopedic Perspective. AAOS Minimally Invasive Spine Surgery Course, July 21-23, 2000.

Newton, P.O.: Orthopedic Issues with 11q Disorders. First 11q Global Conference, San Diego, CA, August 2, 2000.

Newton, P.O.: New Technologies in Spinal Instrumentation. Frontier Pediatric Surgery Club, San Diego, CA, September 6, 2000.

Newton, P.O.: Learning Pediatric Spinal Thoracoscopy. Guest Lecture, Royal Children's Hospital, Melbourne, Australia, October 24, 2000

Visiting Professor, 30th Annual Quebec Scoliosis Society Meeting, Montreal, Canada, November 3-4, 2000

Presentation: Pediatric Spinal Thoracoscopy

Presentation: Development of a Thoracoscopic Scoliosis Instrumentation System

Newton, P.O.: Thoracoscopic Anterior Spinal Release and Fusion. Scoliosis Research Society Tutorial, Philadelphia, PA, November 13, 2000.

Newton, P.O.: Thoracoscopic Instrumentation, Animal Studies. Scoliosis Research Society Tutorial, Philadelphia, PA, November 13, 2000.

Newton, P.O.: Infantile and Juvenile Scoliosis: Indications and techniques for surgical treatment. Classic and Contemporary Insights in Spine Surgery. New York, NY, December 8-9, 2000.

Chairman: Pediatric Spinal Thoracoscopy Tutorial, San Diego, CA, January 21-22, 2001

Newton, P.O., Wenger, D.R.: GICD Tutorial, Pediatric Spinal Deformity Correction, San Diego, CA, February 8-9, 2001.

Newton, P.O.: Debate, Argument For: "Thoracoscopic Surgery: Anterior Release, Instrumentation or Both? And Does It Improve Outcomes?", 8th International ISOLA Meeting, Rome, Italy, February 23-24, 2001.

Newton, P.O.: Chairman: San Diego Spinal Deformity Conference, San Diego, CA, March 17, 2001.

Newton, P.O.: Thoracoscopic Methods of Scoliosis Treatment. San Diego Spinal Deformity Conference, San Diego, CA, March 17, 2001.

Newton, P.O.: Moving to Minimally Invasive and Fusionless Thoracic Scoliosis Correction, Scottsdale, AZ, April 7, 2001.

Newton, P.O.: Scoliosis Update. Children's Hospital Grand Rounds, San Diego, CA, April 13, 2001.

Scoliosis Research Society Traveling Fellowship, April 21 – May 13, 2001. Tokyo, Japan, Saiseikai Hospital & Nippon University: Pediatric Spinal Thoracoscopy. April 23, 2001.

Chiba, Japan, Chiba University: Experimental Studies in the Development of Thoracoscopic Scoliosis Instrumentation. April, 24, 2001.

Sapporo, Japan, Hokkaido University: Pediatric Spinal Thoracoscopy. April 26, 2001.

Beijing, China, Peking Union Medical Center: Pediatric Spinal Thoracoscopy & Mechanical Tethering of Spinal Growth Without Fusion in a Bovine Model: A Possible Method of Fusionless Scoliosis Correction. April 29, 2001.

Hong Kong, University of Hong Kong: Pediatric Spinal Thoracoscopy & Mechanical Tethering of Spinal Growth Without Fusion in a Bovine Model: A Possible Method of Fusionless Scoliosis Correction. May 2, 2001.

Seoul, Korea, Seoul Spine Institute: Pediatric Spinal Thoracoscopy, Indications and Technique. May 5, 2001.

Seoul, Korea, Seoul National University: The Thoracoscopy Learning Curve & Experimental Studies in the Development of Thoracoscopic Scoliosis Instrumentation. May 6, 2001.

Newton, P.O.: Scoliosis Treated by Tethering Technique. Children's Hospital Research Grand Rounds. San Diego, CA, June 8, 2001.

Newton, P.O.: Debate: Thoracoscopic versus Mini-Open approach for Insertion of Instrumentation for Correction of Adolescent Idiopathic Scoliosis. 8th International Meeting on Advanced Spine Techniques. Paradise Island, Bahamas, July 13, 2001.

Newton, P.O.: Deformity Roundtable Case Discussion. 8th International Meeting on Advanced Spine Techniques. Paradise Island, Bahamas, July 15, 2001.

Newton, P.O., Lenke, L.: DePuy Thoracoscopic Anterior Scoliosis Tutorial. San Diego, CA, July 16-17, 2001.

Newton, P.O.: Debate: Open vs Closed Thoracic Approaches. 13th ISOLA Study Group Meeting. Washington, D.C., August 24, 2001.

Fricka, K.B., Mahar, A.T., **Newton, P.O.:** Biomechanical Analysis of Anterior Scoliosis Instrumentation: Differences between Single and Dual Rod Systems with and without Interbody Structural Support. 13th ISOLA Study Group Meeting. Washington, D.C., August 24, 2001.

Newton, P.O.: Advances In the Surgical Correction of Scoliosis. 2001 Annual Clinical Assembly of Osteopathic Specialists, American Osteopathic Academy of Orthopedics Meeting. Palm Desert, CA, October 6, 2001.

Newton, P.O.: Indications and Results of Minimal Invasive Approach to Thoracic Anterior Instrumentation. Scoliosis Research Society Tutorial, Philadelphia, PA, November 13, 2001.

Newton, P.O.: Thoracoscopic Anterior Surgery for Idiopathic Scoliosis. Spine Education Summit, Ranch Mirage, CA, November 16, 2001.

Newton, P.O.: Thoracoscopic Anterior Surgery for Idiopathic Scoliosis. Spine Education Summit, Ranch Mirage, CA, November 16, 2001.

- Newton, P.O.:** Failures of Long Galveston Instrumentation. Spine Education Summit, Ranch Mirage, CA, November 16, 2001.
- Newton, P.O.:** Adolescent Deformity, Panel discussion. Spine Education Summit, Ranch Mirage, CA, November 16, 2001.
- Chairman:** Pediatric Spinal Thoracoscopy Tutorial, San Diego, CA, February 7-9, 2002
Live surgical demonstration, Lecture series: Thoracoscopic discectomy, Thoracoscopic instrumentation.
- Newton, P.O.:** Diagnosis and Management of Scoliosis in Children and Adolescents. 16th Annual Advances in the Practice of Pediatrics, San Diego, CA, February 22, 2002.
- Bradley, J., & **Newton, P.O.:** Bone and Joint Infections: Diagnosis and Management. 16th Annual Advances in the Practice of Pediatrics, San Diego, CA, February 24, 2002.
- Lenke, L.G., Haheer, T., **Newton, P.O.**, Polly, D.: Instructional Course: Adolescent Idiopathic Scoliosis – State of the Art. Lectures: Etiology, Natural History, Non-operative Treatment and Endoscopic Treatment
69th Annual Meeting of the American Academy of Orthopaedic Surgeons, Dallas, TX, February 13, 2002.
- Newton, P.O.:** Thoracoscopic Instrumentation. Federation of Spine Associations AAOS Specialty Day, 69th Annual Meeting of the American Academy of Orthopaedic Surgeons, Dallas, TX, February 16, 2002.
- Newton, P.O.:** Endoscopy – Benefits, Complications, Future Role: Thoracoscopic. Pediatric Orthopedic Society of North America AAOS Specialty Day, 69th Annual Meeting of the American Academy of Orthopaedic Surgeons, Dallas, TX, February 16, 2002.
- Fricka, K., **Newton, P.O.:** Spinal Tethering – A Possible Method for “Fusionless” Scoliosis Correction. 29th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, April 11, 2002.
- Barmada A., Marks, M., Gaynor, T., **Newton, P.O.:** Anterior vs. Posterior Selective thoracic Fusion in Adolescent Idiopathic Scoliosis. 29th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, April 12, 2002.
- White, K., **Newton, P.O.:** Two-Year Outcomes for Thoracoscopic Anterior Release and Fusion for Pediatric Spinal Deformities. 29th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, April 12, 2002.
- Brown, D., Mahar, A., Oka, R., **Newton, P.O.:** Failure Load for Single Screw Plus Staple Constructs in the Pediatric Thoracic Spine: Differences Between “Plowing” and “Levering.” 29th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, April 12, 2002.
- Marks, M., Stanford, C., **Newton, P.O.:** Analysis of Sagittal Balance of the Spine During Various Standing Positions and Gait. 29th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, April 12, 2002.
- Newton, P.O.:** Thoracoscopic Spinal Instrumentation Workshop, Instructor, National University of Singapore, Singapore, October 13, 2002.
- Co-Chairman,** Emerging Technologies in Spinal Surgery Course, Washington, D.C., October 17-19, 2002.
- Newton, P.O.:** Thoracoscopic Approach to Anterior Scoliosis Correction. Emerging Technologies in Spinal Surgery Course, Washington, D.C., October 17-19, 2002.
- Newton, P.O.:** Biomechanics of Anterior Scoliosis Correction... Thoracolumbar and Lumbar. Spine Education Summit, Key Biscayne, FL, November 22, 2002.
- Newton, P.O.:** Thoracoscopic Anterior Scoliosis Correction. Spine Education Summit, Key Biscayne, FL, November 22, 2002.

- Newton, P.O.:** Fusionless Scoliosis Correction... Can it Work? Spine Education Summit, Key Biscayne, FL, November 22, 2002.
- Newton, P.O.:** Thoracoscopy. 15th Annual Disorders of the Spine Meeting, Whistler, British Columbia, Canada, January 20, 2003.
- Lenke, L., Polly, D., **Newton, P.O.**, Haher, T.: Adolescent Idiopathic Scoliosis: State of the Art. Instructional Course Lecture, 70th Annual Meeting of the American Academy of Orthopaedic Surgeons, New Orleans, LA, February 7, 2003.
- Chairman:** Pediatric Spinal Thoracoscopy Tutorial, San Diego, CA, February 20-22, 2003. Live surgical demonstration, Lecture and Laboratory series: Thoracoscopic discectomy, Thoracoscopic instrumentation.
- Newton, P.O.:** Thoracoscopic Correction of Scoliosis. Anterior Reconstruction of the Spine Meeting, Malmo, Sweden, April 11, 2003.
- Newton, P.O.:** Thoracoscopic Correction of Scoliosis. Shriner's Hospital Grand Rounds, Honolulu, HI, April 15, 2003.
- Tis, J., **Newton, P.O.**, Betz, R., Oswald, T., Wenger, D., Lenke, L., Marks, M.: Pelvic Influence on Lumbar Lordosis in Thoracolumbar Adolescent Idiopathic Scoliosis. 30th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, April 23, 2003.
- White, K.K., Bawa, M., Ahn, J.S., Farnsworth, C.L., Faro, F.D., Mahar, A.T., Oka, R.S., Wedemeyer, M.A., **Newton, P.O.**, Garfin, S.R.: The Effect Of *R/h*bmp-2 On Fusion In A Corpectomy Model. 30th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, April 24, 2003.
- Sink, E., Faro, F.D., Mahar, A.T., Oka, R.S., **Newton, P.O.:** Biomechanical Analysis of Different Flexible Nail Sizes in a Pediatric Femur Fracture. 30th Annual David H. Sutherland Pediatric Orthopedic Visiting Professorship, April 25, 2003.
- Chairman:** Pediatric Spinal Thoracoscopy Tutorial, San Diego, CA, May 15-17, 2003.
Live surgical demonstration, Lecture and Laboratory series: Thoracoscopic discectomy, Thoracoscopic instrumentation.
- Spinal Deformity Education Group Fellows Forum, Tucson, AZ, May 30-31, 2003.
- DePuy Fellows Meeting, Boston, MA, June 19 – 21, 2003.
- Masters Deformity Cadaver Course, Bethesda, MD, June 27-28, 2003.
- Newton, P.O.:** Endoscopic Treatment for Idiopathic Scoliosis – Children. World Spine II Pre-meeting Course: Approaches and Techniques in the Thoracic/Lumbar Spine for Spinal Deformity. Chicago, IL, August 10, 2003.
- Chairman:** Pediatric Spinal Thoracoscopy Tutorial, San Diego, CA, Sept. 25-27, 2003. Live surgical demonstration, Lecture and Laboratory series: Thoracoscopic discectomy, Thoracoscopic instrumentation.
- Newton, P.O.:** Update on Deformity: Pediatric and Adult. 16th Annual Contemporary Update on Disorders of the Spine, Whistler, British Columbia, Canada, January 21, 2004.
- Newton, P.O.:** Endoscopic Scoliosis Correction. Third Annual Current Concepts in Spinal Disorders 2004, Palm Springs, CA, February 6, 2004.

- Newton, P.O.:** Open vs Endoscopic Open Techniques in Spinal Deformity. Third Annual Current Concepts in Spinal Disorders 2004, Palm Springs, CA, February 6, 2004.
- Newton, P.O.:** Comparison of Outcomes with Anterior and Posterior Instrumentation for Scoliosis. Spine Education Summit, Vail, CO, February 20, 2004.
- Shufflebarger, H, Haher, T, **Newton, P.O.**, T, O'Brien: Adolescent Deformity Comparison of Outcomes with Anterior and Posterior Instrumentation for Scoliosis. Spine Education Summit, Vail, CO, February 20, 2004.
- Chairman:** Pediatric Spinal Thoracoscopy Tutorial, San Diego, CA, February 26-28, 2004. Live surgical demonstration, Lecture and Laboratory series: Thoracoscopic discectomy, Thoracoscopic instrumentation.
- Chairman:** Pediatric Posterior Spinal Deformity Tutorial, San Diego, CA, April 23-24, 2004. Live surgical demonstration, Lecture and Laboratory series: Posterior Spinal Deformity Surgery.
- Co-Chair:** DePuy Spine Master's Cadaver Course, Denver, CO, June 12-13, 2004.
- Newton, P.O.:** Vertebral Body Rotation Techniques for Correcting Deformities. DePuy Spine Master's Cadaver Course, Denver, CO, June 12-13, 2004.
- Newton, P.O.:** Decision Making in Surgery for Adolescent idiopathic Scoliosis: Posterior or Anterior (Open or Thoracoscopic). DePuy Spine Master's Cadaver Course, Denver, CO, June 12-13, 2004.
- Newton, P.O.:** Cost Comparison of Anterior Open, Anterior Thoracoscopic, and Posterior Instrumentation. DePuy Spine Master's Cadaver Course, Denver, CO, June 12-13, 2004.
- Chairman:** Pediatric Posterior Spinal Deformity Tutorial, San Diego, CA, August 26-27, 2004. Live surgical demonstration, Lecture and Laboratory series: Thoracoscopic discectomy, Thoracoscopic instrumentation.
- Chairman:** Pediatric Posterior Spinal Deformity Tutorial, San Diego, CA, September 24-25, 2004. Live surgical demonstration, Lecture and Laboratory series: Posterior Spinal Deformity Surgery.
- Newton, P.O.:** Thoracic Scoliosis Instrumentation Workshop. Orthopaedic Learning Centre, Prince of Wales Hospital, Chinese University of Hong Kong, Hong Kong, China. October 15, 2004.
- Chairman:** Pediatric Spinal Thoracoscopy Tutorial, San Diego, CA, February 3-4, 2005. Live surgical demonstration, Lecture and Laboratory series: Thoracoscopic discectomy, Thoracoscopic instrumentation.
- Newton, P.O.:** Debate: "Thoracoscopic Anterior Release and Posterior Instrumentation for Idiopathic Scoliosis Greater Than 75 Degrees." 2005 Annual Meeting, American Academy of Orthopaedic Surgeons, Specialty Day, Washington, D.C., February 26, 2005.
- Newton, P.O.:** Endoscopic Deformity Surgery. Innovative Techniques in Spine Surgery, 2nd Annual Meeting, Los Cabos, Mexico, July 20-23, 2005.
- Chairman:** Pediatric Posterior Spinal Deformity Tutorial, San Diego, CA, September 9-10, 2005. Live surgical demonstration, Lecture and Laboratory series: Posterior Spinal Deformity Surgery.
- Co-Chair:** 4th Annual Emerging Technologies in Spine Surgery. Washington, D.C., September 15-17, 2005.
- Newton, P.O.:** Thoracoscopic Deformity Surgery. 4th Annual Emerging Technologies in Spine Surgery. Washington, D.C., September 15-17, 2005.
- Newton, P.O.:** Juvenile Scoliosis: Progressing from Thoracoscopic Instrumentation to Fusionless Growth Modulation.

Visiting Professor, Texas Scottish Rite Hospital, Dallas, TX. October 6, 2005.

Newton, P.O.: Thoracoscopic Application for Spinal Deformity Treatment. 7th Peking Union orthopedic Symposium, Beijing, China. October 15, 2005.

Newton, P.O.: Fusionless Scoliosis Correction by Anterolateral Tethering—Can It Work? 2005 International Symposium on Spine Deformity and Minimal Invasive Spine Surgery. Shanghai, China. October 16, 2005.

Newton, P.O.: Thoracoscopic correction of Deformity: Tips and Tricks. DePuy Anterior Deformity Meeting, Birmingham, UK November 17-18, 2005.

Newton, P.O.: Use of Anterior Instrumentation in Neuromuscular Deformity. DePuy Anterior Deformity Meeting, Birmingham, UK November 17-18, 2005.

Newton, P.O.: Long-Term Expenses of Anterior Deformity Correction (Frontier Case Series). DePuy Anterior Deformity Meeting, Birmingham, UK November 17-18, 2005.

Newton, P.O.: Anterior Fixation Strategies for Neuromuscular Deformity. DePuy Anterior Deformity Meeting, Birmingham, UK November 17-18, 2005.

Newton, P.O.: Thoracoscopic Spinal Deformity Treatment – Tips and Tricks. DePuy Anterior Deformity Meeting, Birmingham, UK November 17-18, 2005.

Newton, P.O.: Sacropelvic Fixation. 18th Annual Disorders of the Spine Course. Whistler, Canada. January 14-20, 2006.

Chairman: Pediatric Posterior Spinal Deformity Tutorial, San Diego, CA, April 27-28, 2006. Live surgical demonstration, Lecture and Laboratory series: Posterior Spinal Deformity Surgery.

Newton, P.O.: Advances in Scoliosis Treatment. Twenty-Third Annual Malcolm B Coutts Western Orthopaedic San Diego Visiting Professorship. San Diego, CA. February 3, 2006.

Newton, PO: Introducing New Technology—A Surgeon's Approach. 11th International Phillip Zorab Symposium. Christ Church, Oxford, United Kingdom, April 3-5, 2006.

Newton, PO: Thoracoscopic Scoliosis Correction. DePuy Spine, Deformity Summit, Miami, FL, April 7-8, 2006.

Newton, PO: Experimental Studies in Fusionless Scoliosis Correction. DePuy Spine, Deformity Summit, Miami, FL, April 7-8, 2006.

Newton, PO: Co-Chair--DePuy Spine, Deformity Summit, Miami, FL, April 7-8, 2006.

Newton, PO: Moderator--Current Concepts in Neuromuscular and Congenital Scoliosis. DePuy Spine, Deformity Summit, Miami, FL, April 7-8, 2006.

Newton, PO: Moderator—Surgical Decision Making in AIS. DePuy Spine, Deformity Summit, Miami, FL, April 7-8, 2006.

Newton, PO: Moderator – Deformity. LaJolla Spine Symposium, Scoliosis Association, Inc. San Diego, CA, April 29, 2006.

Newton, PO: Endoscopic Thoracic Discectomy and Fusion. LaJolla Spine Symposium, Scoliosis Association, Inc. San Diego, CA, April 29, 2006.

Newton, PO: Surgical Treatment of Idiopathic Scoliosis, Anterior vs Posterior – Debate. LaJolla Spine Symposium,

Scoliosis Association, Inc. San Diego, CA, April 29, 2006.

Co-Chair: American Academy of Orthopaedic Surgeons and Scoliosis Research Society Current Trends and Treatment Methods in Pediatric and Adult Spinal Deformity, Costa Mesa, CA, June 9-10, 2006.

Newton, PO: Evaluation of patient with spinal deformity. American Academy of Orthopaedic Surgeons and Scoliosis Research Society Current Trends and Treatment Methods in Pediatric and Adult Spinal Deformity, Costa Mesa, CA, June 9-10, 2006.

Newton, PO: Surgical treatment of adolescent idiopathic scoliosis. American Academy of Orthopaedic Surgeons and Scoliosis Research Society Current Trends and Treatment Methods in Pediatric and Adult Spinal Deformity, Costa Mesa, CA, June 9-10, 2006.

Newton, PO: What's new in deformity surgery—fusion techniques. Innovative Techniques in Spine Surgery, 3rd Annual Meeting, June 21-24, 2006, Los Cabos, Mexico.

Newton, PO: Endoscopic deformity surgery. Innovative Techniques in Spine Surgery, 3rd Annual Meeting, June 21-24, 2006, Los Cabos, Mexico.

Chairman: POSNA/SRS Posterior Spinal Deformity Tutorial, San Diego, CA July 24, 2006. Live surgical demonstration, lectures.

Newton, PO: Endoscopic Surgery – How the techniques alter surgical decision making on capabilities. Scoliosis Research Society, Pre-Course, Modern Techniques in Spine Deformity Surgery: Is the evidence as good as the theory? Monterey, CA, September 13, 2006.

Chairman: Pediatric Posterior Spinal Deformity Tutorial, San Diego, CA, November 16-17, 2006. Live surgical demonstration, Lecture and Laboratory series: Posterior Spinal Deformity Surgery.

Newton, PO: Open, Mini-Open, Thoracoscopic Anterior Instrumentation for Deformity: Status in 2007. Current Concepts in Emerging Technologies in Spine, Vale, Colorado. February 18-21, 2007.

Newton, PO: Pediatric Deformity Update: Fusionless Technologies, Stapling, Direct Vertebral Rotation. Current Concepts in Emerging Technologies in Spine, Vale, Colorado. February 18-21, 2007.

Newton, PO: Co-Chair: Advanced Deformity Hands-On Practical Lab, DePuy Spine. Las Vegas, NV, March 23-23, 2007.

Newton, PO: Fusionless Scoliosis Approach. Visiting Professor, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, March 27-28, 2007.

Newton, PO: Neuromuscular Spinal Deformity Treatment. Visiting Professor, Cincinnati Children's Hospital Medical Center, Cincinnati, OH, March 27-28, 2007.

Chairman: Pediatric Posterior Spinal Deformity Tutorial, San Diego, CA, April 19-20, 2007. Live surgical demonstration. Lecture and Laboratory series: Posterior Spinal Deformity Surgery.

Chairman: SRS Posterior Spinal Deformity Tutorial, San Diego, CA June 11, 2007. Live surgical demonstration, lectures.